RE-CONCEPTULIZING THE RELATIONSHIPS BETWEEN SACRED FORESTS AND ETHNIC MINORITIES: SELECTED CASE STUDIES IN VIETNAM

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Statement of authorship

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university. To the best of the author's knowledge, it contains no material previously published or written by another person, except where due reference is made in the text.

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> The dissertation is a labor of love requiring much work, sweat, and tears, as well as … extensive resources from others who are involved with the process. The final product is a document that one can recognize as a once-in-a-lifetime achievement. We liken this experience to the task of building your own home (Grant & Osanloo, 2014).

Abstract

Sacred forests are thought to have existed as far back as 5000 years BC, when human society was in the early stages of development. Now they are a “global phenomenon” with hundreds of thousands, existing on all continents, including the Austro Pacific region. They form a “field of attraction” representing a deep relationship between cultural conservation by local people and environmental protection. In terms of biodiversity protection, they are often referred to as global “hotspots” of biological significance, “islands of ecological diversity”, or “mini biosphere reserves”. Culturally, they are thought of as “the first temples of worship” in the world.

This research re-conceptualizes sacred forests in terms of diverse experiences, narratives, perceptions and beliefs amongst Vietnamese local communities. This is in opposition to mainstream categorizations based on three major dimensions of economic, environmental, and social-cultural. Specifically, it demonstrates a collective exploration of the three “D” topics of definition, diversity (classification or categorization) and multiple-dimensions economically, environmentally and socio-culturally of these places. Accordingly, the contribution to knowledge in this research is revealed in these three topics. Firstly, it defines holistically sacred forests, which is: Sacred forest are wooded areas of high biodiversity. They belong to fixed communities, where they have holistic significance in regard to livelihood, environment protection, and culture. The cultural dimension honors a deity, provides sanctuary for spirits, reminds present generations of ancestors, and access and management are regulated by traditional powers.

Secondly, this research reveals that sacred forest diversity is mainly due to their socio-cultural context, as opposed to mainstream categorizations based on the two major dimensions of geography and ownership. Finally, research shows that, not only are sacred forests perceived by local people multi-dimensionally economically, environmentally, and socio-culturally; but these dimensions are contextual, and that culture seems to be the strongest influence. Further, the attitude of local people regarding these dimensions is driven by a dynamic of issues related to their demographics of age, gender, and education.

This contribution to knowledge suggests strategies for incorporating sacred forest models into relevant government programs, not excluding agricultural development and food security, environmental protection, cultural conservation, education, and poverty reduction. Findings suggest governments are able to incorporate holistic definitions of sacred forests, especially

spiritual values into sustainable forest management. In Vietnam, this may encourage the government to legitimize this holistic definition into future forestry law and regulations. This incorporation may also redirect understanding diversity of sacred forests in a socio-cultural context. Furthermore, this incorporation also needs to consider the multiple-dimensions of the economic, environment, and socio-culture of sacred forests perceived by local people; the dynamics of context on the ground, and issues related to local demographics of age, gender and education level.

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List of Abbreviations

CBD	Convention on Biological Diversity
DARD	Provincial Departments of Agriculture and Rural Development – Vietnam
Đổi mới (Renovation)	This is the economic reform policy initiated in Vietnam in 1986 by the Sixth Congress of the Communist Party of Vietnam. It marked Vietnam's shift from a centrally-planned economy to a market-oriented economy. This term is often translated as "Renovation".
FAO	Food and Agriculture Organization
GDRP	Gross domestic regional product
IUCN	International Union for Conservation of Nature
MARD	Ministry of Agriculture and Rural Development - Vietnam
NGO	Non-governmental organization
NTFP	Non-timber forest product

PA	Protected area
Program 661	The Vietnam government's program for reforestation of five million hectares in the period between 1998 and 2010, also known as the "Five Million Hectare Reforestation Program". This program was initiated by government Decision No. 661/QĐ-TTg on 29th July 1998.
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
USD	United States Dollar
VND	Vietnam Dong: Vietnamese currency

Chapter 1
Introduction

1.1. Research statement (goal)

Using case studies in Vietnam, this research attempts to re-conceptualize sacred forests in terms of diverse experiences, narratives, perceptions and beliefs amongst local communities. In opposition to mainstream categorizations based on three major dimensions of economic, environmental, and social-cultural, this research specifically demonstrates a collective exploration of the three "D" topics of definition, diversity (classification or categorization) and the multiple-dimensions economically, environmentally and socio-culturally of these places.

1.2. Background

Sacred forests are seen as special types of forests due to their characteristics of biodiversity as well as cultural significance to local communities and indigenous people. They are parts of sacred natural sites generally and customary or community forests more specifically (Oviedo & Jeanrenaud, 2007, in Verschuuren, 2010). What they exactly are as sacred places is mentioned in much literature with a diversity of concepts (Verschuuren, 2010). However, the most holistic definition of these places is probably:

> They are wooded areas, worshiped or feared, and dedicated to the cultural expression of a fixed community (Lebbie & Freudenberger 1996; Chandran & Hughes 1997; Malhotra *et al*. 2007; Sheridan & Nyamweru 2007; Ormsby & Bhagwat 2010; Ormsby & Edelman 2010).

Sacred forests are thought to have existed as far back as 5000 years BC, when human societies were in the early stages of development (Verschuuren, 2010; Soury, 2007; Andhra Pradesh, 2015). Now they are seen as "global phenomenons" numbering in the hundreds of thousands, and can be seen on all continents, including in the Austro - Pacific region (Verschuuren, 2010; Andhra Pradesh, 2015). They form a "field of attraction" that represents a deep relationship between cultural conservation for local people and environmental

protection (Kleinod, 2014; Loh & Harmon, 2005). In terms of biodiversity protection, they are often referred to as global "hotspots" of biodiverse significance (Boadi et al., 2017), "islands of ecological diversity" (Schelhas & Greenberg, 1996), or "mini biosphere reserves" (Mehta & Jain, 2011). Culturally, they are thought to be "the first temples of worship" in the world (Varner, 2005, citing in Deb, 2007).

1.3. Research problem (rationale)

As a "field of attraction" and a "global phenomenon", sacred natural sites and forests have been widely researched over decades covering a wide range of topics, including geographical distribution, number, significance environment, economics, and social-cultural dimensions. In this regard, Ampili (2015) concludes that for sacred forests in particular, studies have generated considerable data and knowledge regarding the number and distribution of these places, associated belief systems, roles they play in the lives of local communities, and their conservation status.

However, this research argues that studies have been less focused on the topics of the two "Ds", definition and diversification (classification or categorization). Furthermore, studies recognize another "D" – the multiple-dimensions economically, environmentally and socio-culturally of these places and favored by positivist perspectives while overlooking an interpretivist one. Positivist-minded studies are criticized for lacking recognition of the intangible contributions of natural resources and forests, such as the provision of environmental services and cultural conservation.

In relation to the first "D" - definition, there are widely used theoretical definitions related to sacred sites and forests. However, few studies conceptualize these terms on the ground. It is internationally argued there is a broad awareness, but an overall lack of definition of the term "spiritual value" of these forests (Clark, 2011). This is problematic, as an understanding of the terms related to sacred natural sites and forests is significant. In this regard, Clark (2011) points out this lack of clarity hinders incorporating spiritual values into the practice of sustainable forest management. Similarly, Henrie (1972) stresses that knowledge of local perceptions of sacred space is essential for a fuller explanation of how man defines, limits,

and characterizes these places. This scholar indicates a need for understanding what is in the mind in order to understand man's earth and his use of it.

In relation to the second "D" - diversification, no studies have been found focusing on classifying sacred natural sites and forests, despite their diversity. As a "global phenomenon" (Andhra Pradesh, 2015), Verschuuren (2010) indicates, it is not possible to have full knowledge about the number of these places existing in the world today. Especially, a study classifying these places in the aspects of culture and religion is needed, because they are related to religion with social-cultural-spiritual implications, which include rituals (or ceremonies) and taboos (eg. Bas *et al*., 2010, cited in Muli, 2016; Anh, 2010; Deb, 2007; Verschuuren, 2010).

The classifications of sacred forests are mentioned in many studies and in many non-cultural ways. As shown in more detail in Chapter 3 (Section 3.3), these places are often classified in terms of utilization, being grouped into multi-dimensional use, and specific use. In term of size, there are no classifications, though they are mostly claimed to be small in many studies (Daye & Healey, 2015; Dudley et al., 2010; Soury, 2007; Andhra Pradesh, 2015). Furthermore, discussions show that sacred forests are however well-classified in terms of ownership which favours non-indigenous people. This classification based on ownership can be argued to cause alienation of local people from their sacred forests (Chandrakanth *et al*., 2004, cited in Ormsby, 2013).

In relation to the third "D" – multi-dimensionality, which has been studied mostly under a positivist perspective, recognizes economic contributions and biodiversity conservation only. Furthermore, there is a significant number of studies that state the use of an interpretivist lense although when it comes to methodology, scholars tend to fall into positivist perspectives by favoring "survey-based" approaches. The advantage of this interpretivist-mind is that values of sacred forests are recognized not only economically and in biodiversity, but particularly their intangible contributions, such as environmental services (eg. climate change, water provision), and cultural value (eg. spiritual beliefs, social connectivity). However, these "survey-based" studies are the same as a positivist perspective that still focuses on the "what" while overlooking the "why" in relation to research issues.

Some recent studies have made calls to address this issue, noticeably Saway (2015) who suggests that understanding the holistic relationships between local cultures and forests, is fundamental to resolving conflicts in existing biases by forest managers over local and indigenous cultures in favour of business interests. Similarly, Singer (2013) argues that ecological and economic arguments present only one side of the story, which suggests the need for further research on the topic of socially contested phenomena in bioenergy production of forest residuals in the US. In line with these two studies, Agnoletti & Emanueli's (2016) calls for less hard science and more detailed ethnographic-humanist analysis of sacred natural sites and forests.

1.4. Research question

In responding to three specific research objectives, three main research questions are proposed:

1) "To what extent is the concept of sacred forests perceived by indigenous people in Vietnam?"

2) "How are sacred forests diverse?"

3) "To what extent and why are sacred forests significant to local people in Vietnam?"

1.5. Research methodology and methods

Case study and research context

This research uses two villages as case studies, one in the Northern and the other in the Central Highland region of Vietnam (see Figure 6h in Chapter 6). These two villages have three sacred forests belonging to two different ethnic minority communities, the *H'Mong* and *Bahnar* minority groups. There are two sacred forests belong to the first village case study, which is in *Lao Cai* province, Northern of Vietnam. The second village case study is in *Kontum* province, in the Central Highland region. A detail of these case studies is presented in Chapter 6 (Section 6.5).

Despite lacking data, it is believed that there are thousands of sacred forests on ancestral land owned by the State, and with many parts of the forests actually managed by approximately 10.000 communities, mostly minorities (Nguyen, 2009). Ethnically, Vietnam's 90 million people belong to 54 groups, of which 53 are minorities and represent 14% of the total population. Similar to the term "indigenous people", the term "ethnic minority group" in Vietnam is considered to be the closest translation for the Vietnamese term "*dân tộc thiểu số,*" and is widely used in official documents and popular speech when to referring to ethnic groups of smaller size than the majority Vietnamese group. Also, Vietnam is a forested country in the tropical region with roughly 50% of its 32 million hectares categorised as forests (GoV, 2012). Geographically, located in Southeast Asia, it shares borders with China to the north, Laos and Cambodia to the west, while to its east is the East Sea. An overview of Vietnam is presented in Chapter 6.

Research stance

Philosophically, this research favors an *interpretivist stance* and acknowledges the existence of an irreconcilable divide between two research paradigms, positivism and interpretivism (Lee, 1991; Van de Ven & Poole, 2005, cited in Singh, 2015). Under this philosophical stance, local knowledge on sacred forests is subjectively, socially and contextually constructed. In other words, knowledge is constructed via individual experiences and social interactions of participants and the researcher.

Theoretical framework

In Chapter 2 (Section 2.3), the researcher presents a theoretical framework used to deal with the three research issues, as well as supporting the researcher as a participant. This framework includes a theory set on epistemological theory of knowledge, that fundamentally addresses the question "how do we know that we know?" (Killam, 2013). In relation to the research issues (ontology), the framework studies the nature of knowledge, justification, and the rationality of belief regarding relationships between sacred forests and local people. This theory set includes: 1) a conservation perspective with exploitation and preservation as the two extremes; 2) Ostrom's (2009) Framework for Analysing Social-Ecological System; and 3) especially the Indigenous Australians' worldview indicated in Sangha et al. (2018).

In relation to the researcher as a research participant, an extra theoretical framework is employed to underpin thoughts on collecting and analysing research data. These include four main theories: 1) the *Indigenous Australians' worldview*, indicated in Sangha et al. (2018); 2) the *sociocultural approach* encouraged by Vygotsky (1978); 3) the *multiculturalist approach* (or *multicultural-epistemological stance*) suggested by Shi-xu (2006); and 4) *embodiment* proposed by Latour & Bruno (2004). Accordingly, multiple theoretical techniques, including *phenomenology*, *grounded theory*, and *ethnography* are employed to drive the collection of primary data for this research.

1.6. Significance

From the first objective – definition, this research proposes an holistic definition of sacred forests which addresses critiques of existing studies of the concept of these places being too broad, and lacking a clarity of the term "spiritual value". Also, this is significant for forest management in Vietnam and the wider world. Basically, a holistic definition is meaningful for convincing policy makers and governments to recognize sacred forests in terms of existence and significance. Therefore, it especially impacts on countries where governments are still in doubt about sacred forests in relation to questions of what they mean, what values they can provide, and who owns them. As a result, these countries are potentially willing to legitimate the resources in their forest management work.

Formal recognition of sacred forests by governments is also fundamental to recognizing the right of local people to forests generally. This is a given in that currently, governments around the world still administer 60% of global forests, while firms and private individuals administer 9% (Myrna, 2016). The rest 31%, are used by forest dependent people, which accounts for 25% of the population. By contrast, there is little of the forests designated to indigenous communities who are the most dependent group on the forests. Data shows (Chapter 4, Section 4.2) that in 2015, there is only 12.5% the global forests held by indigenous peoples.

As a second objective - diversification focuses on classifying sacred forests, and addresses the problem mentioned above that no studies have focused on classifying sacred natural sites and forests, despite their deviersity as a "global phenomenon" (Andhra Pradesh, 2015;

Verschuuren, 2010). It is a given that sacred forests are well-classified in terms of ownership favouring non-indigenous people, and it is argued taking management control causes alienation of local people from these places and natural resources, which is a larger concern (Chandrakanth et al., 2004, cited in Ormsby, 2013).

Findings related to the third research object – the multi-dimensions of sacred forests is significant in many respects. Generally, it is significant in the understanding that the "what" of local people who perceive sacred forests having multiple values (multi-dimensional) – economically, environmentally and culturally. Chapter 4 (Section 4.4) refers to Winter (2007) who indicates that these values are important because they influence attitudes and behaviour. Specifically, the recognition of the dominance of cultural dimensions of sacred forests is significant in the management of forests natural resources generally, and provides a clear answer of the context that the world has been facing environmental crisis. In this regard, research findings are in line with other studies that confirm traditional forest management models must be advocated to replace western ideas in managing nature.

It is significant that sacred forests are also contextual providing livelihoods for local communities, and there is a need to consider alternatives then planning management of these places. The need to provide alternative livelihoods is crucial for forest-dependent people globally and in Vietnam. Globally, around 25% of the world's population of "forest people" depend to varying degrees on forests for their livelihoods, not just for food, but also for many other uses such as fuel, livestock grazing and medicine (Sophie 2012, cited in Hall & Patrinos, 2012). In addition to this, 50 - 90% of total livelihood incomes of the poorest people are dependent on natural ecosystems (Roger, 2012).

1.7. The structure of this thesis

This research process follows the circle presented in Figure 1a below, which indicates the structure of this dissertation including 7 components presented in 11 chapters. To support these 11 chapters, there are also appendixes and references attached at the end of the thesis. As shown in this figure, these components and chapters are related to each other through lines, based into two colors red and blue. The color of the shaded areas is to differentiate elements between the components.

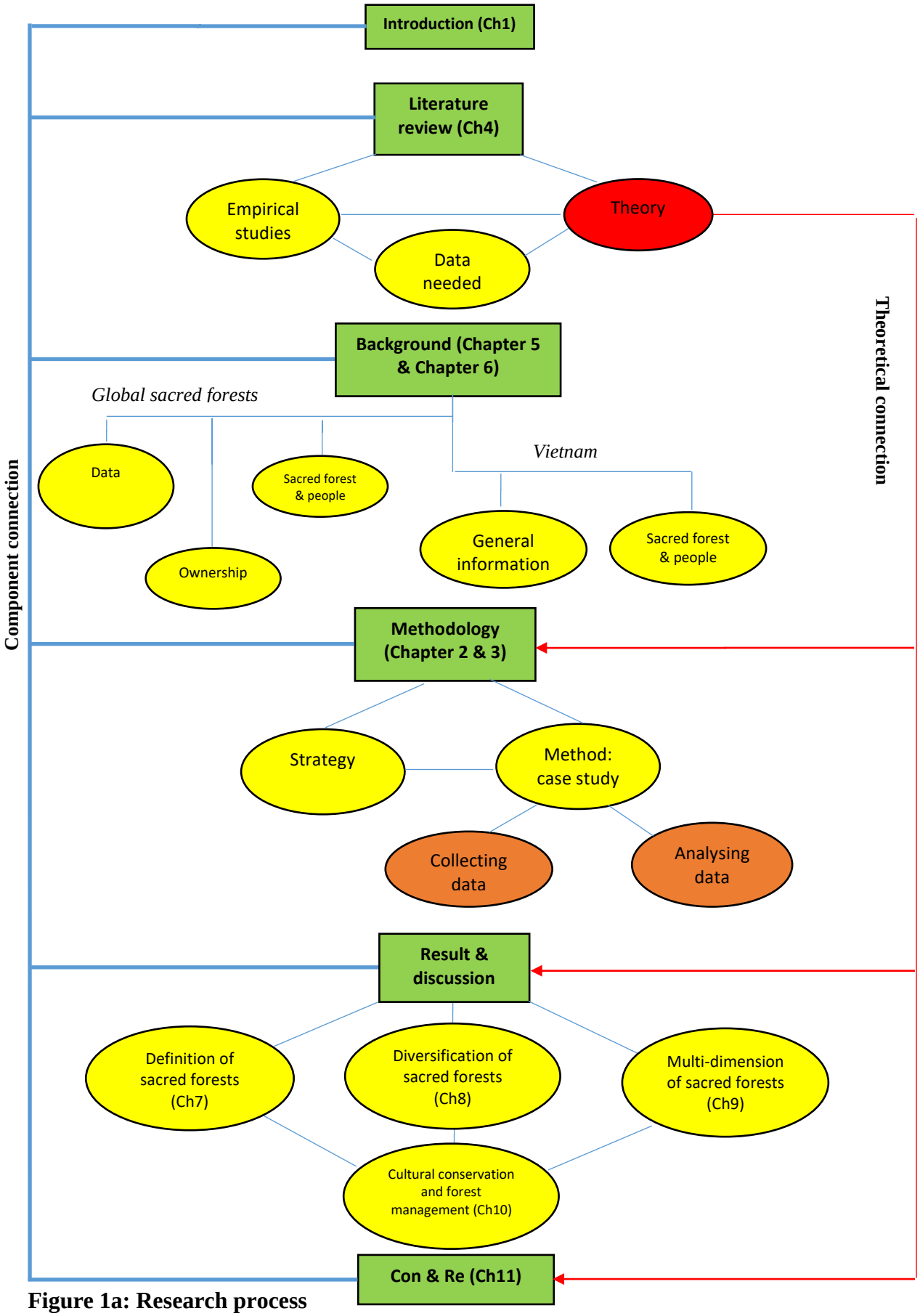


Figure 1a: Research process

In Figure 1a, the research begins with the component “literature review” which is presented in Chapter 4. This survies evidence as well as theories related to the three specific objectives – definition, diversity and multi-dimensions of sacred forests, and discusses important premises for their exploration. By examining relevant contents of existing literature on sacred natural sites with a focus on sacred forests, it shows that little work has been carried out on the first two “D” topics. In addition to this, it demonstrates that the third “D” topic has been mostly studied using a positivist approach, which can be argued in many respects, it establishes the relevance of the research.

This chapter expands a theory set in the research issues (presented in the previous chapter), and builds a foundation for the next stage of the research. In relation to the research issues, it addresses the “epistemology” of research originality. This research approach (presented in the previous chapter) is determined by this chapter with a regard to the topics of what data is needed and what theoretical framework underpins the exploration of these research issues.

Secondly, this research focuses on surveying and analyzing data related to sacred forests, both globally and in Vietnam. In the component presented in Chapter 5, an analysis of data relevant to sacred forests such as indigenous people and their ownership of these resources. In relation to Vietnam, information about the country and the case studies are discussed in Chapter 6. This chapter discusses Vietnam as a “forestry country” with diversity of ethnic minority groups. Especially, the management of forestry is driven by a wide ranges of issues, including natural conditions (eg. tropical climate), plurality of politics and governance (eg. ruled by Communist Party with 5 levels of administration), and the diversity of ethnic groups in poverty and with poor education.

Chapter 5 shows how “sacred forests” are termed and defined globally as well as in Vietnam. With two sections presented separately, sacred forests of the world and Vietnam are synthesized in regard to the topics: legal recognition, quantitative figures, and significance economically, environmentally, and culturally. This synthesis is carried out in consideration of data related to forests and indigenous communities globally and Vietnam.

This chapter also reveals the arguments of special natural sites and sacred forests as a global phenomenon, as “hotspots” multi-dimensionality and as “fields of attraction” to academia.

However, quantitative figures as well as qualitative implications of these forests are contradictory across scales globally, nationally, and locally. There is an argument that they are significant for biodiversity protection and the life of local people, although these forests are tiny in size, small in proportion, isolated in location and connectivity. Also, it is argued that sacred forests have been left behind in the aspects of: sufficient data; ownership by dependent people, especially local people and indigenous communities.

Thirdly, this research presents components of a "conceptual framework" and "research design" in Chapters 2 & 3 respectively, covering two issues: research strategy and its methodological details. Overall, these chapters present the main approaches as well as the methodological details for an exploration of sacred forests in Vietnam. It is in "methodology" (Killam, 2013) that the researcher thinks about the "why" and the "how" research is conducted.

Fourthly, findings related to the three research issues are respectively presented by Chapter 7, 8, 9 & 10. Each of these findings is discussed based on the theoretical fremeworks presented in the Chapter 2, 3, 4, 5, and 6 of this dissertation. Collectively, findings presented in Chapter 7, 8 & 9 result in finding a correlation between the three "D" topics, shown in Chapter 10 and summarized in Chapter 11 (Section 11.1).

Finally, the circle closes by presenting a "conclusion" and "introduction" as two independent chapters (Chapter 11 and Chapter 1). The conclusion chapter (Chapter 11) creates a synthesis of all chapters in a manner of the "what" and the "why" of the research issues. In other words, it generally shows the significance and implications of the research, which are built upon the summary of research findings concluded in each chapter. Specifically, it addresses the question of how the research contributes to the discipline by implicating issues such as: new method, and the context enabling this research to be carried out at this time.

This research also addresses how the research may make an impact or intervention in society in terms of the research topic. In this regard, conclusions explain how research findings can forward policy and practice, and offer a series of pathways for future research projects. This refers back to the literature presented in Chapter 4, 5, and 6 of this dissertation. In addition, there is a discussion on the limitations of this research, and what went wrong when the

research was carryed out. This is an effort to suggest ways for future research, and for doing research differently. Therefore, the focus is very much on reflecting on research methods. This is a part from other recommendations of this research.

1.8. Summary

This chapter presents the research topic, the “ontology”, the theory of objects and their relationships (Killam, 2013). In relation to this research, the ontological assumption is the relationship between ethnic minority groups and sacred forests in Vietnam. More specifically, it explores the three “D” topics of definition, diversity (classification or categorization) and multiple-dimension economically, environmentally and socio-culturally of these places. Equally important, this chapter maps out the journey of the writer, which is evident in the structure of this dissertation, and furthermore, it provides a brief introduction regarding the topics problems, significance, and methodology.

Chapter 2
Conceptual framework

2.1. Introduction

This chapter details the research framework, which according to Creswell (2003) includes two elements; philosophical assumptions about the nature of knowledge claims; and general strategies to approach research objects. This starts with a philosophical paradigm (Section 2.2), a crucial element. Lee (2004) amongst other scholars eg. Lewis (2000) indicates it is an often-neglected issue in many domains of research. This section also justifies a case study selection. Followed (Section 2.3) by the researcher presenting a theoretical framework to deal with the three research issues and to support the researcher himself as a participant.

2.2. Research philosophical stance and case study justification

2.2.1. The philosophical stance

Research philosophies are a stance or worldview that underlines and informs a style of research (Sapsford, 2006; Lee, 1991; Van de Ven & Poole, 2005, cited in Tuli, 2011). According to Creswell (2013), cited in Singh (2015), research philosophy formulates the way researchers see problems, set questions, and seek information for answers. In this regard, there is a popular notion of an irreconcilable divide between two research paradigms, positivism and interpretivism (Singh, 2015). Although there are attempts integrate the two, Singh (2015) indicates in carrying out research, there needs to be clear choices in selecting one of the two philosophical stances. The choice indicated by Lewis (2000) is usually determined by its suitability to the research question(s) and one's worldview.

In relation to finding a research philosophical stance, Sapsford (2006) and Lee (2004), cited in Singh (2015) indicate that discussions around this issue essentially involve deliberations on ontology, epistemology, and methodology. According to Brabazon (2017), ontology is what people believe about objects and their relationships. In relation to the current research, the ontological domain is the knowledge of sacred forests, and it argues that knowledge about sacred forests is subjectively, socially and contextually constructed, and determined by the

ontological position of interpretivism (or relativism) indicated in Tuli (2011). The ontological position of interpretivism is relativism, believing that reality is subjective and differs from person to person (Guba & Lincoln, 1994, in Tuli, 2011). This argument rejects positivism and argues for the superiority of constructivism, idealism, relativism, humanism, hermeneutics, and, sometimes, postmodernism (Guba & Lincoln, 1989; Lincoln& Guba, 2000; Schwandt, 2000; Smith, 1983, 1984, in Johnson et al., 2004).

Knowledge is subjective because by its nature as Tuli (2011) indicates, knowledge is, and ways of discovering it, are subjective. In relation to sacred forests, it is subjective because of definitions of what these places mean and what value they offer, is always in relation to human beings. The discussion in the following chapter (Chapter 4) shows that the human element is often referred to in definitions of sacred forests, and the relation to humans indicated in Arora (2006), shows that the idea of a forest separated from people is an illusion, "since it denies the unalienable relation of nature to man" (Rangarajan, 1996: 70). In accordance with this, Chapter 4 also shows numerous studies indicating that sacred forests are closely linked to local communities through the values these natural resources offer.

Knowledge about sacred forest is socially and culturally constructed for many reasons. Chapter 3 shows that, social and cultural elements are always referred to in definitions of sacred forests used in, or proposed by existing studies. In terms of significance, they are possibly "the first temples of worship" (Varner 2005, in Deb, 2007). Furthermore, Kant & Lee (2004) argues that economists indicate the multiple values of forests are closer to the concept of "social states" than market price or monetary value.

Knowledge about sacred forests is contextual in many respects. In terms of definition, there is always a need to connect to certain contexts in defining the terms related to these resources (Muli, 2016; Ormsby, 2013; Anh, 2010; Deb, 2007; Poffenberger, 1996). In terms of value perceived by local people, there are many influencing factors, such as demographics of the people, their age, gender, educational level etc.), and distance from the forests. Furthermore, the belief of local people about sacredness of the forests changes over time, which evident in many studies is discussed in Chapter 4.

As the ontological position of this research is relativism, its epistemology belongs to subjectivism, which is based on real world phenomena (Grix, 2004, cited in Tuli, 2011), where time and context-free generalizations are neither desirable nor possible (Guba, 1990, cited in Johnson et al., 2004). Therefore, this stance favours a qualitative research approach, relying upon the "participants' views of the situation being studied" (Creswell, 2003, p.8, cited in Mackenzie & Knipe, 2006; Tuli, 2011; Johnson et al., 2004; Mackenzie & Knipe, 2006) to yield insights and understandings of phenomenon (Tuli, 2011). This stance dislikes detached and passive styles of writing, preferring instead, detailed, rich, and thick (empathic) descriptions, written directly and somewhat informally (Johnson et al., 2004) to generate or inductively develope “a theory or pattern of meaning" (Creswell, 2003, cited in Mackenzie & Knipe, 2006). The researcher is interested in immersing himself in a culture or group by observing its people and their interactions, often participating in activities, interviewing key people, taking life histories, constructing case studies, and analyzing existing documents or other cultural artifacts (Tuli, 2011).

2.2.2. A justification of case study approach

According to Yin (2009), the rationale for adopting a case study approach results from the nature of the question, complexity of the phenomenon studied, and newness demanded. As this research attempts an in depth understanding of the relationships between sacred forests and local communities, it resembles the characteristics of case study approaches “in depth rather than breadth” (Kothari, 2004) or an “in-depth examination” (Goodrick, 2014). Furthermore, this research uses a qualitative strategy, which confers with Kothari’s (2004) notion that a case study method is a popular form of qualitative analysis. This justification evident in a meta-analysis of research topics and methodologies by Westhuizen (2002), indicates the most typical application of qualitative research seems to be that of case studies.

According to Gilbert (2001), a case study is one in which a particular instance or a few carefully selected cases are studied intensively. Gerring (2007: 94-95) defines a case as “a spatially delimited phenomenon (a unit) observed at a single point in time or over some period of time. It comprises the sort of phenomena that an inference attempts to explain” (p. 94). Acknowledging the division between two groups, their single and multiple case studies, this research uses two case studies, because Goodrick (2014) advises that a two or more case

approach produces more generalizable knowledge about causal questions. As such, this research purposefully selects case studies as advised by Gilbert (2001), who says that usually there is no attempt to select a random or a representative sample of cases. Outcome of the selection is presented in the Chapter 6 (Section 6. 4).

2.3. Theoretical framework

2.3.1. The human-nature relationship

As the research topic sited under the "umbrella" of the relationship between humans and nature, there is a need to consider worldviews about this relationship. Clayton and Myers (2015) visualizes this as a spectrum, with exploitation and preservation as the two extremes (Figure 2a). According to these scholars, the conservation perspective (anthropocentric viewpoint) recognizes that humans need to live within ecosystems and interact with other species. By contrast, the preservative (eco-centric viewpoint) recognizes that nature has intrinsic value which is diminished by the presence of humans.

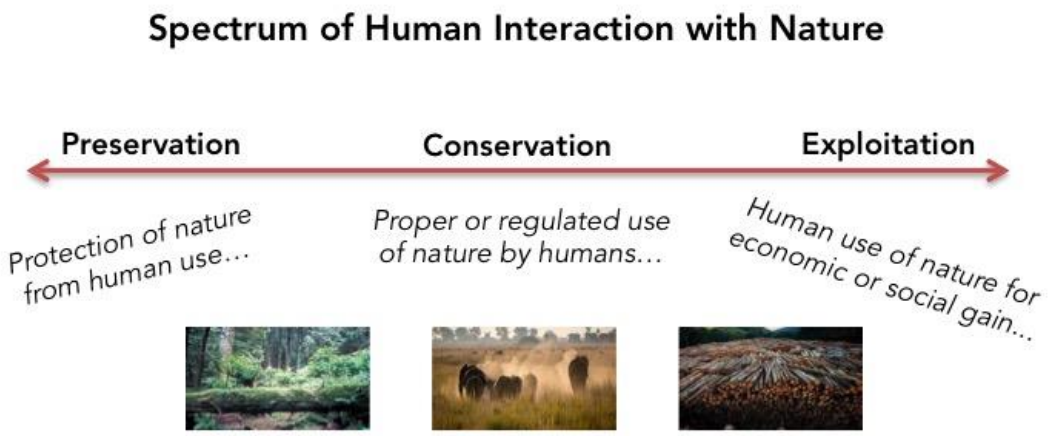


Figure 2a: Three spectrums indicating interaction between human and nature

Source: Clayton and Myers (2015).

In analysing the relationship between human and natural resource management, Ostrom's (2009) framework for analysing social-ecological systems reflects the connections of three elements: (1) resource system and resource units; (2) governance systems; and (3) resource users (pp. 420). In her descriptions of framework, the "resource system" consists of a wide range of natural resources, such as forests, wildlife and water sources; "resource units" refers to individuals or attributes within the "resource system", such as trees, specific types of animals and the amount of water; and the "governance system" includes organisations and institutional frameworks that influence resource management, including government departments and government policies related to the management of those "resource systems" or "resource units"; "users" are the people who use the resources (Figure 2b).

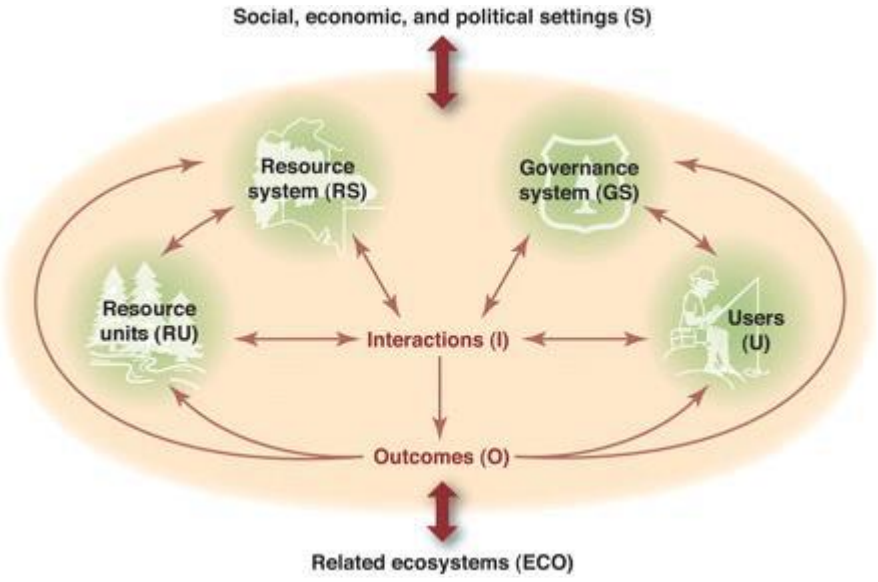


Figure 2b: Subsystems in a framework for analysing social-ecological systems

Source: Ostrom (2009).

Especially, Sangha et al (2018) refers to indigenous Australians' perspective to indicate that local communities intricately connect with nature through a representation of sacred, physical, and social worlds (Figure 2c). The worldview considers nature as the 'Mother', who

fulfils spiritual, social, religious, and material needs of human beings. Nature representing by various plants and animals, and natural features is important to the relationships among human society and their songlines, stories, and ceremonies. In technical terms, the authors indicate that nature offers opportunities for people to learn and perform rituals and cultural ceremonies, and to continue their spiritual-cultural relationships. From an ecological perspective, the connection with nature through their ethics, ceremonies, and norms, which may have significantly helped them live sustainably over millennia, and which further contributes to preserving the diversity of natural and cultural systems.

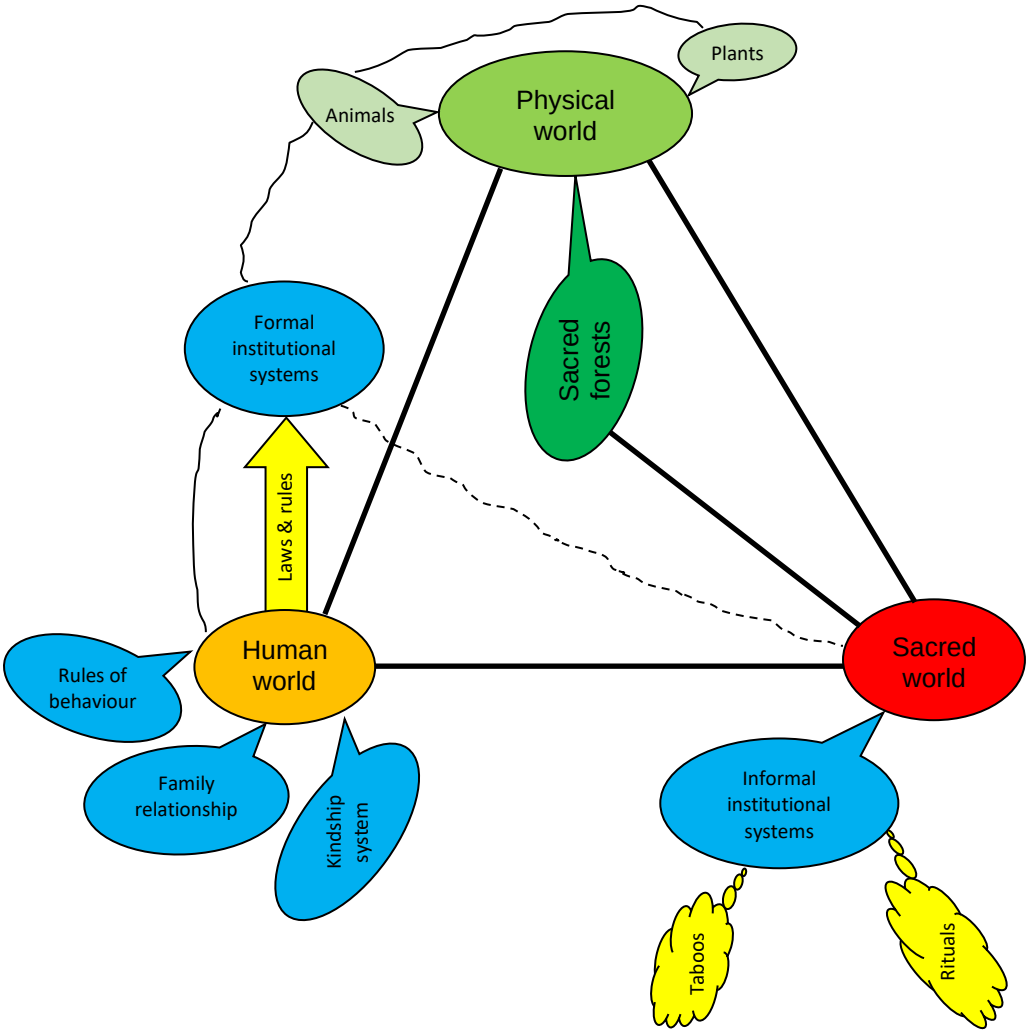


Figure 2c: Comprehension of Indigenous worldview

Source: Adapted from Aboriginal art cited by Sangha et al (2018).

Positioning the research issues in these perspectives, especially the worldview of indigenous Australians, the definition of sacred forests is therefore determined by the relationship between the human and the sacred worlds (Figure 2d). Therefore, diversification of sacred forests is determined by both physical aspects and cultural aspects (representing the sacred world). In relation to the multi-dimensionality of sacred forests, they are determined by the relationship between humans and nature. In this regard, nature to human beings is where they perceive ecosystem services, in which the United Nations's (1992) "sustainable development" paper divides into four categories: Promoting Services, Regulating Services, Cultural Services and Supporting Services. Each type of service provides different benefits that contribute to human well-being. In relation to forests for example, ecosystem services include: climate regulation, i.e. carbon stocks and their resilience; provisioning services, including timber, fuelwood, food and medicine (Assessment 2005). A detailed analysis of these three theoretical frameworks is shown in the following chapters (Chapters 7, 8, 9 & 10).

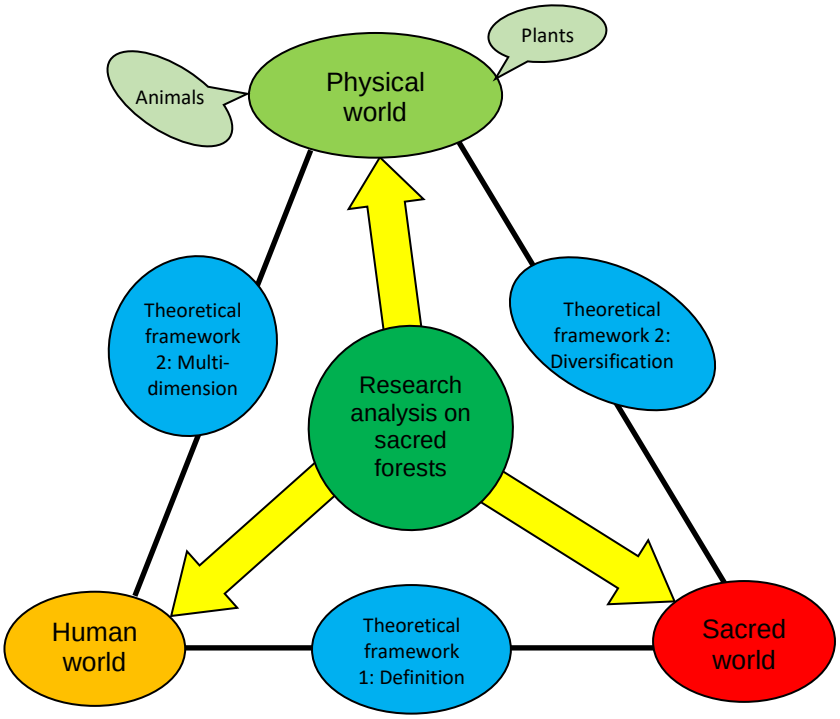


Figure 2d: Theoretical framework to address the research issues

Source: Adapted from Aboriginal art cited by Sangha et al (2018).

2.3.2. Embodiment

Under an interpretive world view, much literature has indicates the relationship between local knowledge, embodiment, qualitative research inquiry, and ethnography. As discussed in Tul (2011), interpretive researchers use qualitative research methodologies to investigate, interpret and describe social realities (Bassey, 1995; Cohen, Manion & Morrison, 2000, cited in Tuli, 2011). According to Dombroski (2011), ethnographers have always known ethnography is an embodied process, but embodiment has been less studied in relation to fieldwork on the topics of vulnerabilities and crisies of researchers. In relation to the connection between qualitative inquiry and embodiment, Dombroski (2011) indicates that qualitative researchers hold on to the researching body as the *sine qua non* of research methods (Crang, 2003, citing in Dombroski, 2011). Referring to Hammersley and Atkinson (2007), O'Reilly (2012) acknowledges that the term ethnography is variable, contested, and overlaps with qualitative research more broadly, and with 'fieldwork', case studies, and even life histories.

This discussion argues that knowledge of experience and emotion are common ground indefining local knowledge, against qualitative research inquiry, ethnography, and embodied knowledge (Figure 2e), although the relationship of these inquiries all together is often taken for granted, and rarely indicated in literature. In this regard, embodiment is a useful in doing research, and especially significant to research related to local knowledge, including qualitative research and ethnography. While these types of studies require understanding people's thoughts (what they think), emotions (how they feel), and behaviour (what they do), the "embodiment" learning model proposed by Latour (2004) provides an "extra-mind", which is "body-mind" for researchers in doing fieldwork.

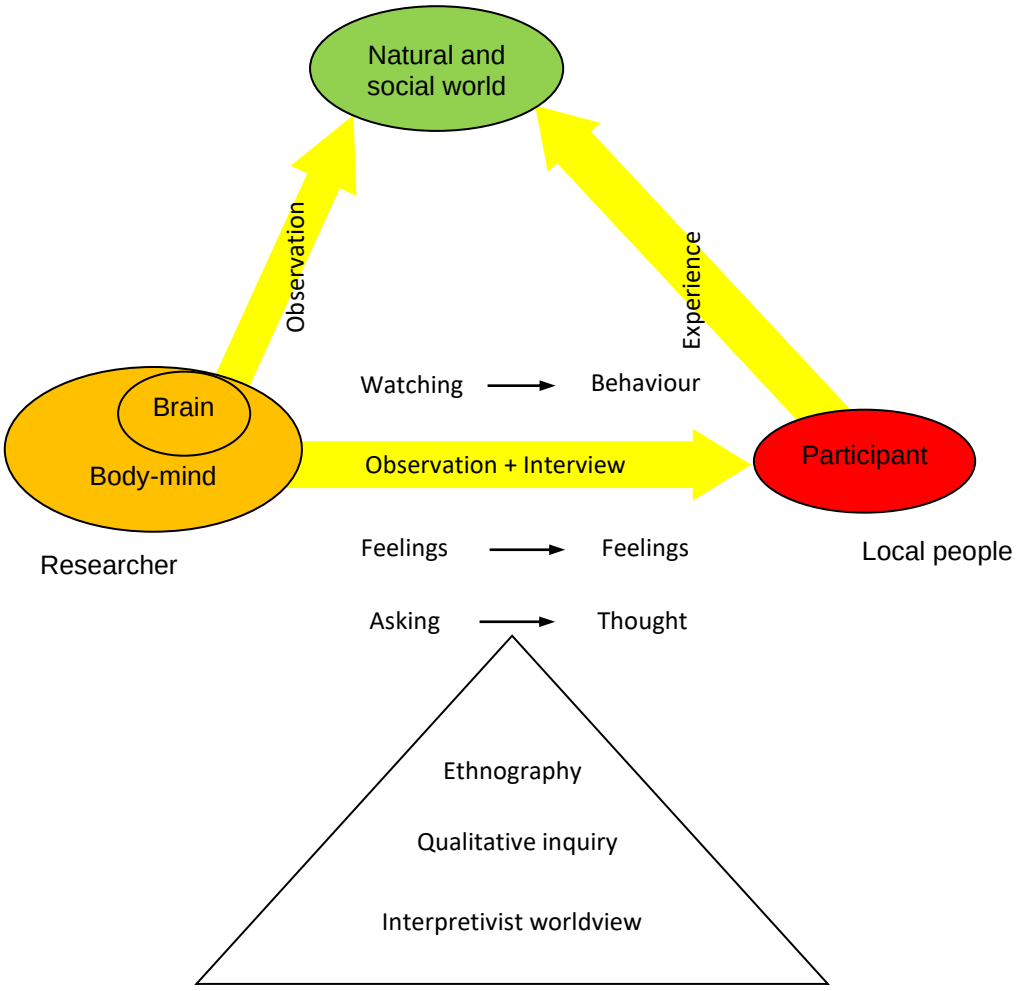


Figure 2e: Embodiment in doing research

a) Embodiment as a learning approach

Embodiment is a useful tool in understanding the natural and the social worlds because of what the body knows, or what it is capable of. As indicated in Daniel (2005), embodied knowledge reveals what the body knows, what it is capable of, and recalling Foucault, what it does. Similarly, to avoid dualism/holism arguments, Latour uses William James notions of emotion to define the body by what it does, not its physical characteristics (Latour, & Bruno, 2004). As Litalien (2017) indicates, by being present, embodied, responsive, we become aware of places in the body where we may not move so freely.

For Litalien (2017), the body has its mind through the notion of "body-mind" to indicate that every muscle and tissue of the body is conscious and sensual. Therefore, researchers need to activate their "body-mind" to explore stories, memories, emotions stored and hidden in the deeper muscles and tissues of the body. Embodiment becomes significant in understanding the world because, as argued, when we embody, we are developing more of a habit of thinking deeply about the learning/understanding process so that we start to realize what we don't understand (Sciencechoreography, 2017). Also, as mentioned above, if a person is embodied, he/she is sensual to feeling the world in and around him/herself, falling in love with it, becoming curious and childlike with it (Litalien, 2017). Being embodied is the best sense on how to ask questions, and for knowing more, the issues expected to be understood (Sciencechoreography, 2017).

Especially, "embodiment", as Latour (2004) states from Vinciane Despret's argument which draws on William James "emotion": to have a body *is to learn to be affected*, meaning 'effectuated', moved, put into motion by other entities, humans or non-humans. In Kinsella (2015), seeing the body as a subject, as a vehicle for understanding, brings about a shift from disembodied knowing towards embodied knowing. Emotion, or bodily and emotive knowledge is important for learning, as Peile (1998) and Ollis (2010) emphasizes in practicing activism, activist's learning involves the whole body, including the mind, the physical body and the emotions. Having said that by fully experiencing our own "*bodily vulnerability*", we are able to become aware of and connect with 'the other' – whether this other is our own failing or sick body, the natural and material world, or the social other (Gronda, 2010; see also Naess, 1995; Plumwood, 1993, cited in Dombroski, 2011).

Specifically, Latour, & Bruno (2004) explains how embodiment is significant for learning. In the re-definition of avoiding dualism/holism arguments, Latour argues that having a body is to learn to be affected; to be moved emotionally, and thus to be moved to action (Latour & Bruno, 2004). The essential nature of the body is therefore to learn, with the body becoming the interface between mind and external environment. As such, the environment becomes ever more describable as the body learns to be affected by more and elements. This thinking argues the body is not a spiritual place, a residence for soul, universal essence or thought, but of

memories from which to learn what the world is made of, and be sensitive to. By emphasising what the body does (learning), embodiment becomes “what the body has become aware of”.

b) Significance for fieldwork

Acknowledging the learning ability of the body is especially signficant to research related to local knowledege, including qualitative research and ethnography. While these type of studies requir**e** understanding people’s thoughts (what they think), emotions (what they feel), and behaviour (what they do), the “embodiment” learning model proposed by Latour (2004) provides an “extra-mind”, which is “bodymind” for researchers in doing fieldwork. As indicated in Litalien (2017), researchers can journey the world that is stored by their bodymind, where stories, memories, emotions stored are hidden in the deeper muscules and tissues of the body. Therefore, he/she is sensual to feeling the world in and around him/herself, falling in love with it, becoming curious and childlike with it.

Acknowledging the learning ability of the body is especially signficant in this research. Basically, the more the researcher knows issues related to this research, the more he asks the question “how do I know that I know”. Put simply, the whole idea is to let the body be “emotional” and “affected” so that it could detect or sense (learn) clues amongst “elements” for understanding the world that the researcher wants to explore. This leads to linking the concept of “epistemology” which Audi (2010) indicates as the study of knowledge … and reflecting on one's view of what we can know about the world, and how we can know it. Therefore, by addressing the latter, his learning keeps expanding in an ongoing process.

Specifically, acknowledeging the embodiment learning model is significant for progressing this research into two aspects. The first, the researcher is more mindfull in acknowledeging sources of knowledge gained from reviewing literature, which can be seen as knowledge gained by education under the classification of Carayannis & Campbell (2019). This is because under definitions of knowledge, any gained information can not be termed knowledge unless the question “how do you know what you know” is met (Bolisani & Bratianu, 2018; Brabazon, 2017). The second relates to field study, collecting primary data, and the experience of knowledge under the classification of Carayannis & Campbell (2019). This is presented in more detail in the following chapter (Chapter 3, Section 3.5).

2.3.3. Socio-cultural approach

In addition to these perspectives, the researcher uses a *sociocultural* approach to deal with the cultural and social aspects of this research. According to the father of this approach, Vygotsky (1978), social interaction plays a fundamental role in an individuals' cognitive development. In other words, the community, society, and culture in which individuals live, decides how individuals make meaning. A person's cognitive formation cannot be detached from their social cultural environment. As a result, knowledge on sacred forests is viewed as a result of social and cultural features specific to the ethnic minority communities in Vietnam and in different contexts formed from social interactions among ethnic minority people. Therefore, an understanding of sacred forests in Vietnam cannot be complete without relating it to Vietnamese cultural values about behaviours and communication in a particular context.

The researcher is also guided by a *multiculturalist approach,* or *multicultural-epistemological stance* suggested by Shi-xu (2006). This "epistemological attitude or stance on knowledge seeking and making it beyond an ethnocentric monopoly of truths… draws critically, reflexively, and creatively on culturally differing and competing systems of knowledge", the outcome of which is "the construction of historically conscious, culturally inclusive and locally-and-globally-minded forms of theory" (Shi-xu, 2006, p. 384). Ethnocentrism is the act of judging another culture based on preconceptions that are found in the values and standards of one's own culture (Mezirow, 1997).

Generally speaking, this approach allows the researcher to go beyond the singular, often claiming universal (but still Eurocentric) view of the world, and to reach diverse cultural views of knowledge. Shi-xu describes two steps to achieve this epistemological stance. On the one hand, the researcher determines a research focus or theory construction on some particular, culturally specific discourse, or context. In this regard, the research's focus is on understanding sacred forests in the context of Vietnam and related to particular ethnic minority groups.

On the other hand, researchers should have balance, keeping close observation and reflecting on the focused discourse in order to produce his/her own theoretical ideas. According to Shi-xu, this research stance facilitates researchers' sensitivity to new changes in the target

contemporary globalized culture, and gives opportunities to see how local culture responds to global impacts. This satisfies the interconnected, hybridized and diversified condition of cultures resulting from increasing globalization and is shown in varying aspects during the research process.

While this research is constrained by local perspectives, it does seek connections between different relevant theories. Research assumptions of theoretical and practical bias in the academic world, fit the current status of sacred forest research, as discussed in the literature review. According to Shi-xu, this stance helps rectify the imbalance between Western and Eastern worldview and value systems in the current academic world, and can bring researchers to a more inclusive, sophisticated and innovative understanding.

Shi-xu's multiculturalist tendency, although emphasizing local properties, still maintains a global perspective in research. This supports the research to, on the one hand, take advantage of the long-built traditional global conceptualizations and theorizations of sacred forest understanding, which equips the researcher with background understandings and useful conceptual and analytical tools for this research. It also helps penetrate the contemporary existence of sacred forest understandings of Vietnamese's ethnic minority groups and explore their specific cultural and social traits. This approach keeps the researcher conscious of the impact of globalization on the way sacred forest understandings operate in contemporary Vietnam.

The researcher is especially alerted to the complexity, diversity, multiplicity and dynamism of the research objects on sacred forests which is a reminder to pay attention to both tradition and integration. Lastly, a multiculturalist stance holds the researcher to the central role, as Shi-xu (2006) describes, as a critical mediator and meaning maker, in order to "create a relevant, novel, and helpful understanding of the discourse in question" (Shi-xu, 2006). This stated role means the researcher is responsible, flexible, and confident throughout the research processes to bring a reliable understanding of sacred forests in Vietnam.

2.3.4. Theoretical tools

In relation to data collection and analysis, this research employs multiple theoretical techniques, including phenomenology, grounded theory, and ethnography. These approaches

are suited to the complexity, diversity, multiplicity and dynamism of the research objects ofsacred forests. The operation of this multiple approach is presented in the following chapter (Chapter 3).

Firstly, in relation to ethnography, the roots of this method lie in cultural anthropology, with the aim to look beyond what people say to understand the shared system of meanings called "culture" (Goulding, 2005: 298; Reeves et al., 2008). In Shaffir (1999: 676), the purposes of ethnography is to understand the hows, whys, and whats of human behaviour" (Shaffir, 1999: 676). According to Mabweazara (2013), ethnography's *raison d'etre* is to draw connections between practices, experiences and contexts (within which both the participants and the researcher find themselves). Therefore, the voices of participants are important sources of data (Goulding, 2005: 299).

The hallmark of ethnography research is fieldwork, which Goulding (2005: 299) describes as a labour of intensive and prolonged direct contact with research participants in an effort to look for rounded, holistic explanations. As described in Shaffir (1999: 676), the primary process of ethnography is "to describe, analys, and interpret social expressions between people and groups".

Ethnography concerns not only collecting data, but also the cultural context (Goulding, 2005: 299; Shaffir, 1999: 676). In order to satisfy these dual concerns, it requires ethnography researchers to take risks by openly exploring their feelings and experiences for reducing the distance between researcher and subject, through more fully including the latter in the process (Shaffir, 1999: 681). Ethnography uses various types of investigation, ranging from surveys to observational data, video tapes, photographs and recordings of speech in action (Goulding, 2005: 299).

These multiple data collection methods potentially form the framework for analysis, which requires tactics for representing research findings (Goulding, 2005: 299). In this regard, the voices of participants are needed to be evident in the written end-product with a coherent, fluent and readable narrative (Boyle, 1994; Muecke, 1994, cited in Goulding, 2005: 299).

The grounded approach, as it originated in the work of Barney G. Glaser and Anselm L. Strauss (1967), it is a general methodology. Their systematic guidelines developed a theory

that focuses on rigorous analyses of empirical data; analysing the data through analytic processes of coding, developing, checking, and integrating theoretical categories; and writing analytic narratives throughout the inquiry (Charmaz & Belgrave, 2007: 1; Charmaz, 2014; Strauss & Corbin, 1997).

Finally, the development and application of phenomenology has a long, controversial, and often confusing history within the social sciences (Rehorick and Taylor, 1995, cited in Goulding, 2005: 301 – 302). It has been conceptualized as both a philosophy (Husserl, 1962; Heidegger, 1962) and a methodology (Schutz, 1967), depending on individual epistemological and ontological positions (cited in Goulding, 2005: 301 – 302). According to Goulding (2005: 301 – 302), the goal of phenomenology is to grow and deepen one's understanding of a range of immediate experiences (Spiegelberg, 1982), to critically reflect on conscious experience (rather than subconscious motivation), and to uncover the essential invariant features of that experience (Jopling, 1996).

2.3.5. Research categorization

This research is interpretive or exploratory in the sense that it differs from confirmation type studies by its hypothesis-generating nature. Similar to the exploratory research described by Stebbins (2001), this research begins from a position of very little understanding of the connection between the three "D"s in discussions of sacred forests in existing literature. The aim is to develop a first-time impression of the connection between specific case studies of sacred forests in Vietnam and from there to generate an understanding of them, and perhaps suggests possible generalizations for later investigation.

2.4. Conclusion

This chapter presents the research framework advocated by Creswell (2003), which includes philosophical assumptions about the nature of knowledge claims, general strategies for approaching research objects, and theoretical frameworks. InSection 2.2, a justification is given forwhy interpretivism drives this research process, the case study selection and the writing style used. This research holds the view that there is an irreconcilable divide between the two research paradigms of positivism and interpretivism, despite the attempts that have been at integrating the two. Also, a justification for the case study approach taken is provided

in this section. These justifications are an effort to provide the reader with a rationale forwhy this research has been conducted as it has, ensuring that the whole process is open to scrutiny.

In Section 2.3, the researcher presents a theoretical framework for dealing with the three research issues and supporting the researcher as a research participant. This framework includes a theory set fundamentally addressing the question "How do we know that we know?" (Killam, 2013). In relation to the research issues (ontology), this framework studies the nature of knowledge, justification, and the rationality of belief regarding relationships between sacred forests and local people. This theory set includes: 1) the conservation perspective spectrum, with exploitation and preservation as the two extremes; 2) Ostrom's (2009) Framework for Analysing Social-Ecological Systems; and indigenous Australians' worldview, as indicated in Sangha et al. (2018).

In relation to the researcher as a participant, an extra theoretical framework is employed to in collecting and analysing the research data. This framework encompasses the following four theories:1) the indigenous Australians' worldview indicated in Sangha et al. (2018); 2)the *sociocultural approach* set out by Vygotsky (1978); 3) the *multiculturalist approach* (or *multicultural-epistemological stance*) suggested by Shi-xu (2006); and 4) *embodiment*, as proposed by Latour & Bruno (2004). Multiple theoretical techniques, including *phenomenology*, *grounded theory*, and *ethnography*, are employed to drive collection of the primary data of this research.

This section also sets out the style of this research report generally (and the data analysis outcomes in particular). The presenting style herein is a combination of the auto ethnographical and the conventional. The former ensures the research is presented in a creative, imaginative style. The later satisfies the requirements of writing a PhD dissertation, which is structured according to a template. An example of how these two styles can be combined is by using quantitative descriptions to deliver precise impressions of research data.

Chapter 3
Research design

3.1. Introduction

This chapter sets out the research design, which goes on to shape the approaches taken to fieldwork access, data analysis, data collection, reporting, and ethical issues. Section 3.2 discusses fieldwork accessibility, an exciting and complex part of social research (Scott et al., 2006) that is often taken for granted; the researcher's negotiation of complex relationships, interests, situations, and logistics are reported here. The two following sections (Sections 3.3 and 3.4, respectively) present how the data was collected and analyzed. Section 3.5sets out the style of this research report generally (and the data analysis outcomes in particular).Finally, Section 3.6 focuses the reader's attention on the issues of trustworthiness and ethics, which were crucial to ensuring the quality of this research.

3.2. Fieldwork access

The complexity of field work has been highlighted by many scholars and often encompasses navigating numerous 'lines' or'official routes' of access, administrative hierarchies(Bonnin, 2010), and complex processes with multiple layers (Whiteford & McAllister, 2007). This can be simplified into three groups of challenges: (1) managing linguistic and cultural issues, (2) gaining consent and approval from the government, and (3) finding partner organizations to support the research (Boggiano et al., 2015).

In dealing with these three groups of challenges, researchers need to rely on "social capital" (Boggiano et al., 2015). Using social capital refers to increasing the accessibility and availability of public resources to the individual through participation in the community (Burt, 2000; Woolcock & Narayan, 2000). Boggiano et al. (2015) also identifies three levels of social capital that align with these three groups of challenges: macro, mescro, and micro.

Gaining the necessary access to do fieldwork in rural areas in Vietnam could take months or even years, as the country has an authority system that is complex, hierarchical, and multi-layered. Each layer involves meeting many official requirements, also referred to in some

studies as gaining "permission", or "red stamps" (Boggiano et al., 2015; Nguyen (2015); Bonnin, 2010; Turner, 2010). Using a case study in a Northern Province of the country as an example, this dilemma is described by Bonnin (2010) in Box 3a below.

Box 3a: A description of the complexity of gaining access to fieldwork in rural areas of Vietnam

> …to obtain my central-level permits I was required to submit a programme of work for approval by my host institute. This consisted of a timetable that indicated precisely where (district, commune, marketplace) I would be conducting research and on what days. This system was not ideal, given that I had hoped to have a more flexible schedule for field visits that would evolve based upon the information I was obtaining. It was furthermore complicated by the fact that I was interviewing and undertaking observations in periodic marketplaces, which only occur once per week.
>
> After obtaining the central-level research permits, I then had to meet with representatives at the *Lào Cai* Province People's Committee to have further red stamp permits issued for every district in the province where I wanted to conduct fieldwork... I then had to meet with contacts at the People's Committee in each of the districts to specify the particular communes outside of the main town that I wished to visit, and also the various state bodies that I wanted to speak with. Sometimes, additional special authorisations were also required to conduct interviews with particular state departments. All of these meetings required some time to arrange and also a number of formal meetings with state representatives.

Source: edited from Bonnin (2010: 5).

Of the two case studies presented herein, this report presents the first as an example of how fieldwork access was achieved. As part of the normal routine for academic research following the western model, the field trip was approved by the The Human Ethics Committee of the University of Canterbury (Appendix 01).There were five stages to gaining access to the village, at central, provincial, district, and commune levels (Sikor, 2001). Figure 3a presents these five stages of the fieldwork process.

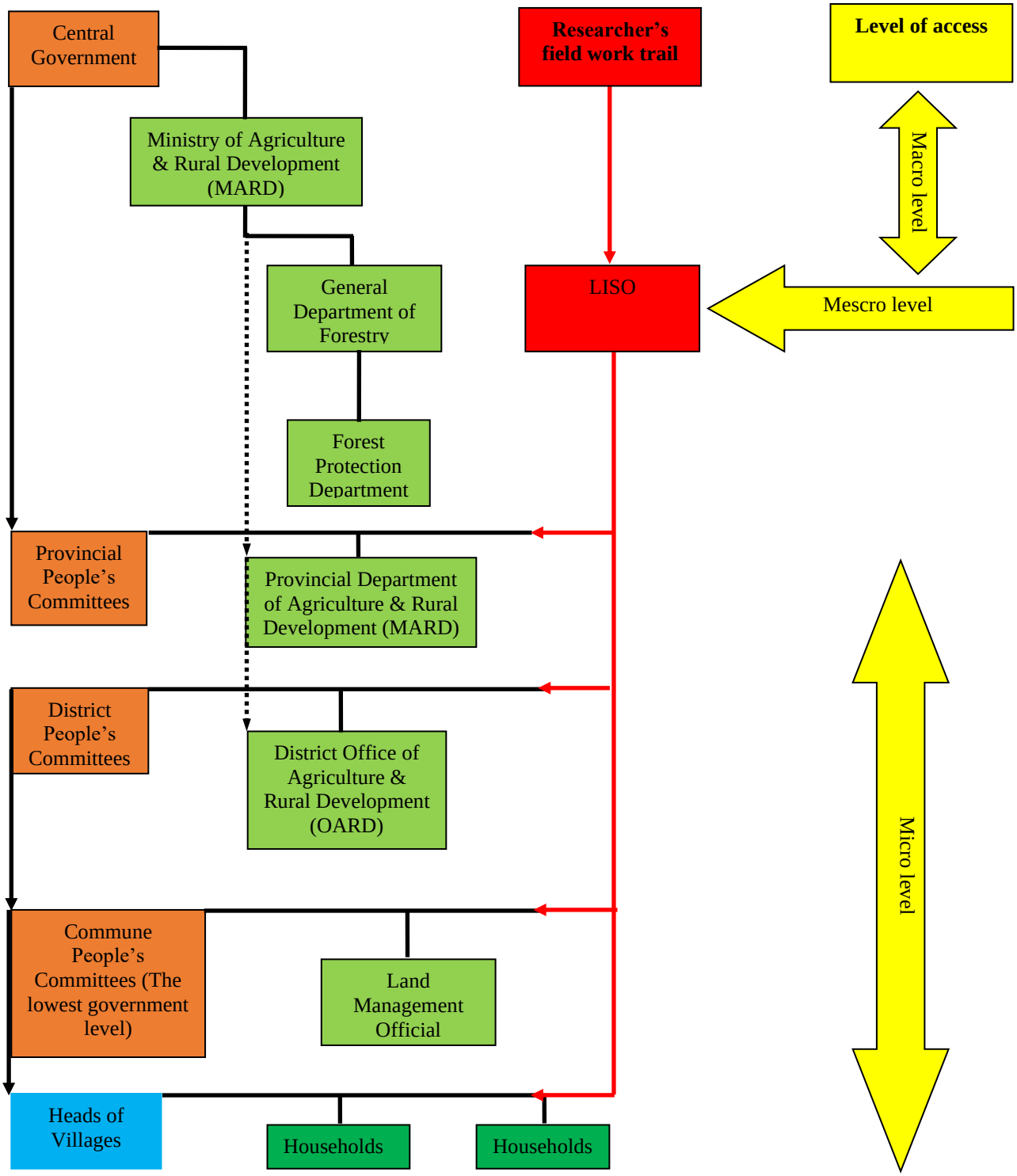


Figure 3a: Fieldwork process

At the macro level, Boggiano et al. (2015) indicate a need to understand the host country's government structure. In relation to this research in Vietnam, fieldwork required a high level of government engagement. This included relevant government ministries at the central level, and the local governments in each province functioning somewhat in parallel to the national ministries. As the researcher worked for the Vietnamese Government at the central level for a number of years, usually "formal channels" could be used in accessing permission. Access was firstly granted through government bodies at the central level; these included the Ministry of Agricultural and Rural Development (MARD), the Ministry of Natural Resources Management (MRNM), and the National Assembly Council of Ethnic Minorities (NAEM). These institutions are directly related to the management of natural resources and ethnic minority groups in Vietnam. However, in this research, the researcher relied on a group of NGOs instead of using "formal channels". This group of NGOs functioned as social capital at both macro and mescro levels, as explained below.

Creating micro level social capital requires locating trustworthy and reliable key informants who have strong connections with the population (Hubbell, 2003; Mack, Woodsong, MacQueen, Guest, & Namey, 2005; Temple & Edwards, 2002; Yach, Mathews, & Buch, 1990, cited in Bonnin, 2010). According to Boggiano et al. (2015), key informants are defined as local individuals who are willing to provide essential information about the population of interest. These people are called "gatekeepers" (Høyland et al., 2015), or "field assistants" (Bonnin, 2010). They assist in developing an understanding of the community at a quicker pace than the researcher could achieve on his or her own. As interpreters, they connect the researcher to the population of interest, help inform the design of the study, and at times come to play the role of core researcher. The researcher engaged with four groups of "gate keepers" across the five levels of government authority. Their significance to this research is presented in the following sections.

3.2.1. Central government level

The researcher relied on a group of NGOs to approach the case studies instead of using "formal channels", and these NGOs form the Livelihood Sovereignty Alliance (LISO), described in Box 3b below.

Box 3b: A description of NGOs LISO

The Alliance has been formed between three organizations, CODE, CIRUM and SPERI. These NGOs share direction and strategies in an effort to maximize methods and maximize efforts and achievements, using three pillars including: 1) Eco-Farming Education, 2) Livelihood Sovereignty, and 3) Nurturing Nature, or interacting to nourish the Civil Society River, flowing to balance and fertilize its two sides, government and business. CODE is an abbreviation of Consultancy on Development. CIRUM is an abbreviation of Culture Identity and Resources Use Management. SPERI is an abbreviation of Social Policy Ecology Research Institute.

In order to better empower Traditional Civil Society for Livelihood Sovereignty, TEW - CHESH-CIRD merged into SPERI in 2005. SPERI focused on the six inter-related MECO-ECOTRA themes (see MECOECOTRA) and on strengthening Traditional Civil Society via the Young Indigenous Ethnic Leadership Development Strategy and the Ecological Farming Education at Farmer Field Schools. At the same time, one team of seniors from TEW and CIRD initiated a separate independent organization named CIRUM to concentrate on Forest and Land Rights for vulnerable groups, and on networking for self - sufficiency development. Later, in 2007, the Lobby Department of SPERI formed an independent Consultancy on Development (CODE) to focus on bridging and strengthening Public-Private-Civil Society relations for lobbying policy on Mining, Hydropower, and Extractive Industries. In 2013, an Alliance on Livelihood Sovereignty, which includes SPERI, CODE, and CIRUM, emerged.

Source: Adapted from CIRUM (2017).

This NGO has connections with the central government of Vietnam, including the institution where the researcher worked: the Party Central Committee's Economic Commission[1]. The former often implements development projects funded by the Government of Vietnam (GoV).

[1]The Central Committee of the Communist Party of Vietnam (Vietnamese: *Ban Chấp hành Trung ương Đảng Cộng sản Việt Nam*) established 1930, is the highest authority within the Communist Party of Vietnam elected by the Party National Congresses.

As a result, this NGO works with local authorities across Vietnam, including the areas where the two cases in this research are located. The advantages of this relationship included: developing local contacts (Hubbell, 2003); legitimizing myself in the eyes of the local government officials; finding key informants; obtaining government approval; assessing the cultural appropriateness of questionnaires and other research materials; and overcoming unforeseen problems that might occur during the research. Ferguson (2006) argues that one of the advantages of implementing development projects is that they can act as a basis for extending the power of the State and a tool for building governmental presence from a distance (Ferguson, 2006, citing in Minh et al., 2016). In the case of Vietnam, it is suggested that local authorities follow directives from the capital diligently (Bertrand, 1994, cited Turner, 2010).

The researcher has a strong personal connection with many key people in the NGO, including *Mr. Nguyen Van Su*, *Mrs. Tran Thi Hoa*, and *Mrs. Tran Thi Lanh*. *Mrs. Hoa* is a network facilitation group coordinator, and is the Director of CIRUM and a coordinator of LISO. *Mrs. Lanh* is program coordinator for LISO. *Mr. Su*is a field researcher and services programme coordinator. He is also the Vice-Director of CIRUM. *Mr. Su* became the "gatekeeper" for the research at this level.

As *Mr. Su* had worked closely with provincial authorities for decades, he understands the region the case studies are located in well, and knows how the local authority works, who the key people are, the forestry characteristics of the province, and the culture of the local communities. He gave the researcher invaluable advice about who needed to be spoken with and how; about the local nature and culture and which sacred forests the researcher should visit; and about how the researcher should and should not negotiate within the culture of the local people.

Mr. Su offered his support because of his common interests with the researcher in sacred forests and local people. They both grew up in the same region –the *Nghe Tinh* province (GoV, 2000), which later became the *Nghe An* and *Ha Tinh* provinces. This region is more difficult to live in than other regions of the country due to its hot weather and dry winds; the soil is also poor quality for agricultural practice. These circumstances brought about a

common understanding of, and a common sense of respect for, nature and local culture between *Mr. Su* and the researcher.

3.2.2. Provincial level

Mr. Su actedas "gatekeeper" to the central governmental levels and introduced the researcher to *Mr. Diep,* who then became the next level "gatekeeper" at the provincial level. *Mr. Diep* is the head of forestry in the province. To be made "welcome" by this gatekeeper at the provincial level was fortuitous and *Mr. Su* and *Mr. Thai* played crucial roles in this regard. The gate keepers focus (in helping the researcher gain further access) was on highlighting the government background of the researcher.

To this end, they indicated that the researcher worked for a powerful institution in *Hanoi*, the Central Economic Commission of Vietnam's Communist Party. This quickly brought about acceptance because it is common in Vietnam for provincial governments to pursue vested interests driven by the central government (Fritzen, 2006; Clement, 2010; Clement & Amezaga, 2009; Mattner, 2004). The "purpose highlighted" approach avoided the researcher being introduced to *Mr. Diep* as a PhD student from an overseas university, as this likely would have made *Mr. Diep* less willing to welcome the researcher to his province.

3.2.3. District level

As directed by the provincial "gatekeeper" to the district authority (*Lao Cai*), the researcher was welcomed when meeting with the leaders of the district, a group which included *Mr. Minh* and *Mr. Hai* (director and vice-director of the Forestry Division of the District). The "obedience" culture required that these two people initially welcome the researcher, as he had a reference from their boss at provincial level, *Mr. Diep*. As the meeting progressed and the researcher had built some trust with his interviewees, the researcher broadly introduced to forestry management in the district, was also introduced to local sacred forests and indigenous people. In return, the research topic was highlighted, including the sampled sacred forests suggested by the gatekeepers at central government level.

When the discussion became more informal, a staff member, *Mr. Hong*, was mentioned. The researcher recognized his name, as he was a close friend from his undergraduate days at

university nearly two decades ago. *Mr. Hong* became the gatekeeper of the "district gate", as he had worked in the district authority for many years by this time.

In his role as the district level gatekeeper, *Mr. Hong* took the researcher into the "micro level" environments of the commune and village; he provided a lot of information about the district and the communes in the district. The discussion with the other "gatekeepers" had provided an overview of the district setting and further discussion with *Mr. Hong* provided a chance for the researcher to cross-check what had been previously discussed with others. The researcher's past friendship with *Mr. Hong* made data provided by him easy to rely on.

In regard to issues of power, *Mr. Hong* helped the researcher connect with many other key people, including the president of the district and the head of the forestry division. These people played key roles in helping the researcher understand forestry management and the social-economic-cultural background of the district. They became "gatekeepers" in discussions related to the research topic.

3.2.4. Commune level

Arriving with *Mr. Hong* at the commune on 11 January 2017 after 15 km on a scooter, we met *Mr. Toan*, an *H'Mong* and president of the commune at that time. The meeting, although short, helped the researcher formulate a clear plan for working in the village starting that afternoon. *Mr. Hong's* introducing of the researcher at the beginning of the meeting was fundamental to the getting go ahead at the meeting, as well as the time being at the commune. As the meeting included village representatives with different responsibilities, the introduction was generic and made mention of the meetings the researcher had had previously with the district authority, and the province leader. After relationships and trust had been established, *Mr. Sang*, a staff member of the commune authority, was offered as this level's "gatekeeper".

3.2.5. Village level

Mr. Sang took the researcher to the village and went first to a collective meeting with the elders –*Mr. Chua*, and the Head of the village *Mr. Din*. This meeting was held informally at *Mr Din's* house, and was also attended by *Mrs. Ly*, *Mr. Din*'s wife. The meeting finished at

dinner time, which meant everyone gathered around the kitchen fire and chatted informally. Trust was built as the participants chatted about various topics.

Backing by the village headman conferred power and trust onto the researcher in the eyes of the informants, because a headman is elected directly by local people. In electing this person, villagers usually focus on the personal qualities of candidates such as virtue, trustworthiness, integrity, and knowledge, rather than specific electoral promises or platforms (Malarney 1997, Shanks *et al.*, 2003, cited in McElwee, 2006). Furthermore, a village headman plays a role as a bridge between the official authorities and the villagers. Gradually, as the daily activities of each household become interwoven into official schemes and programs, the village headman becomes the real leader (Minh et al., 2016).

Among village leaders, the village headman is the most useful in terms of obtaining information about the village. This is because of the nature of the government's presence at village level. The official system does not deal with villages as collective entities, but rather with individual households. Each household and member is provided with a set of official certificates, which are required when that household works with official authorities. The position of the village headman therefore becomes important because he is able to assist his villagers in acquiring these documents. Through his understanding of how official procedures work and his ability to translate between his native language and the official Vietnamese language (the former is spoken by very few officials), he has the most up-to-date information on the village (Minh Anh et al., 2016). As a result, the village head was able to provide essential information about the population of interest. He was able to assist the researcher in developing an understanding of the community at a quicker pace than that of other "gate keepers," such as the secretary of Communist Unit, the secretary of Youth Union, or the village security man.

As a researcher doing ethnography in another culture, it is challenging to have an interpreter. In the researcher's experience, the best person for this role is often a village leader, such as the secretary of the Communist Unit, the headman, the secretary of the Youth Union, or the village security man (Appendixes 02, 03, and 04). Of these "key persons", the village headman was chosen because he was likely to be relatively well-educated according to

McElwee (2006). In ethnic minority areas, leaders must be fluent in Vietnamese in order to play the role connecting villagers to the government presence (McElwee, 2006).

In addition to the village headman, the council of elders—especially the patriarch—are very important. In Vietnam's ethnic minority communities, the patriarch is a leader called "*già làng*" and is usually the wealthiest or most powerful member of the council of elders (Kurfürst, 2012). There is also, a council of elders called "*hội đồng già làng*", which consists of the heads of each lineage (Minh et al., 2016). Each village consists of one or more lineages, and within each lineage, authority rests with the eldest male member (Nguyen, 2001, cited in Minh et al., 2016).The council of elders often gathers to discuss matters that concern multiple families, and makes decisions concerning war, relocating the village, great hunting parties, settling conflicts between families, the appropriate sanctions for serious violations of tribal custom, and tradition. When the village deals with outsiders, such as during inter-village conflicts, the patriarch usually represents the village when settling the issue (Minh et al., 2016).

The council of elders (in particular the patriarch and the village headman) are the most fundamental social organization in Vietnam (Kurfürst, 2012). Getting along well with the council of elders means the researcher has better access to, andis more effective in obtaining interviews with, the villagers. This is because a "*co´ uy*" leadership of the people is bestowed upon them. "*Co´ uy*" leadership (Truong & Hallinger,2017) describes a combination of legitimate and moral authority necessary in order to achieve subordinates' obedience, trust, respect, commitment, and emulation.

As with the elders, the researcher approached the villagers (including women and young people)by making reference to the meeting with the patriarch and the village head. During fieldwork, there were days when the researcher stayed in the houses of other elders. This happened as the trust building process progressed. Some elders offered for the researcher to stay overnight in order to prolong the interviews. In those circumstances, the researcher and the interviewees were engaged in on-going, interesting discussions.

3.3. Data collection

This section focuses on presenting primary data, though asa qualitative design, it follows Stebbins (2001) and includes multiple data sources, including documentary material (e.g. local authority minutes, scientific reports, and deputations to government hearings). Asqualitative research methods are diverse (encompassing approaches such as empirical phenomenology, grounded theory, ethnography, protocol analysis, and discourse analysis (Lewis, 2015)), this section justifies why ethnography was selected and how this method was practiced by the researcher.

3.3.1. Collecting secondary data

According to Kothari (2004), secondary data may either be published or unpublished. The sources of unpublished data are many, including diaries, letters, and unpublished biographies and autobiographies. These data sources are available to the researcher as they were held by himself and his colleagues and other public/private organisations back in Vietnam.

The published data in this research comesfrom three sources: 1) governmental, including (a) various publications of the central state and local government; and (b) various publications of foreign governments or international bodies; 2) academic sources, including (c) journals; (d) books, magazines, and newspapers; (e) reports and publications of various associations connected with Vietnam; (f) reports prepared by research scholars, universities, economists in different fields; and (g) public records and statistics, historical documents, and other sources of published information. Much data was made available for use by the researcher at the beginning of this PhD. These sources of data are a result of working for the government of Vietnam for 15 years. Other data the researcher collected from the library of the university, and the “google scholar” search engine.

3.3.2. Collecting primary data

As discussed in the previous section, qualitative data collection strategies were used because of the interpretivist stance of the researcher (Rahman 2016; Singh 2015). Moreover, this research was guided by philosophical beliefs within the framework of social constructivism (Creswell, 2013). In this respect,Nguyễn (2013) points out that beliefs in social constructivism also guide the choice of qualitative methods such as interviews, observations

and text analyses to answer research questions (instead of the scientific methods used within positivism).

Kothari (2004) describes primary data asbeing collected using several methods, with a particular focus onsurveys and descriptive research. Other important methods are (i) observation, (ii) interviews, (iii) questionnaires, (iv) schedules, and (v) other methods, which includes:(a) warranty cards; (b) distributor audits; (c) pantry audits; (d) consumer panels; (e) mechanical devices; (f) projective techniques; (g) in-depth interviews, and (h) content analysis. The rest of this section presents how and why the researcher collected his research data.

3.3.3. Why ethnography

Qualitative research methods are diverse and encompass approaches including empirical phenomenology, grounded theory, ethnography, protocol analysis, and discourse analysis (Lewis, 2015). In relation to the current research, ethnography waschosen because it best suits studies related to culture, behaviour, attitudes, and beliefs; phenomenology because it studies individual's lived experiences of events; and grounded theory because it goes beyond, adding to the existing body of knowledge by developing a new theory about a phenomenon grounded on data (Polkinghorne, 1983, cited in Elliott, 1999).

3.3.4. Why interview and observation

Usually, a wide range of methods are used in collecting primary data in qualitative studies, such as interviews (open-ended and semi-structured), discourse analysis, and participant observation (Layder, 1993, cited in Beckley et al., 1999). However, this research used two methods: interview and observation. This is because these two techniques mutually support each other; as Lewis (2000) indicates, ethnographers learn through systematic observation in the field—by interviewing and carefully recording what is seen and heard—all the while learning the meaning that people ascribe to what they say and do.

3.3.5. Sampling interview

DiCicco-Bloom and Crabtree (2006) states that interview are one of the most important qualitative data collection methods. According to these scholars, in-depth interviews provide

rich information about the experiences of individuals. What follows is an explanation of how samples of interviews were selected and how the interviews were carried out.

During fieldwork, 48 informants were interviewed through the researcher "hanging around for the best advice" (Shaffir, 1999: 677) for an ethnography; this random stance directed the researcher's exploration of the villages. Research informants were not randomly selected, but rather attention was paid to who were potentially the best sources of data for this research. This approach led to a diverse range of informants.

Interviewees were sorted in terms of the richness and reliability of their information (Figure 3b and Appendixes 05 and 06). As indicated in this figure and the appendix, the 48 interviewees were classified into three groups. As shown in the figure, 37.5% (18 interviewees) of the sample were interviewees with rich and reliable information (special group). The reliability of the information was assessed by the interviewer based on his embodied knowledge.

An analysis of the group of 18 interviewees shows that they are mainly well-educated elderly people. This is in line with criteria indicated byLewis and Sheppard (2005): knowledge: having an understanding of and appreciation for traditional cultural and spiritual uses of the forests; the role in the communities: elderly counsel who, by virtue of their profile in the community, are exposed to a range of cultural perspectives and perceptions of the landscape; and communication ability: possessing a relative ease with outsiders and ability to discuss cultural issues in some depth.

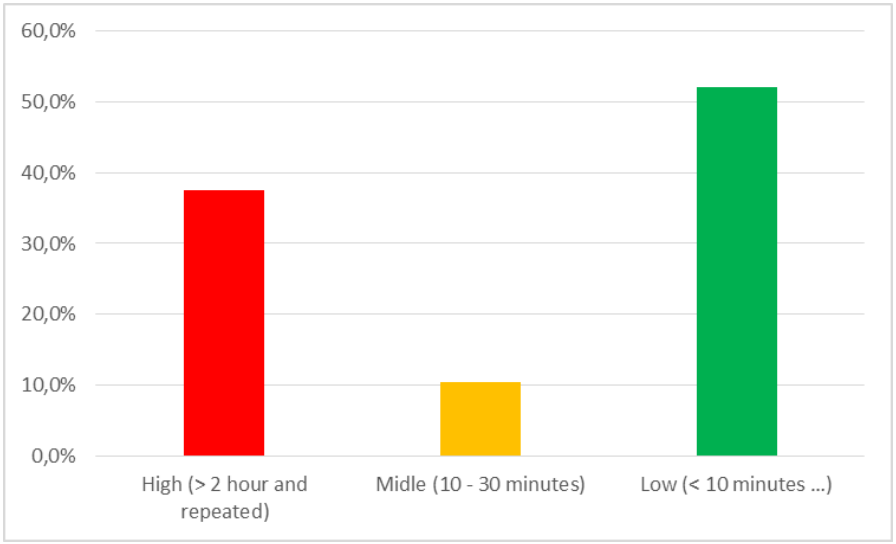


Figure 3b: Interviewee categorization by richness of information

As interviewees were randomly approached, there is no correlation between the population and the actual sample size. As indicated in Figure 3c, while the largest age group in the population is those under 30 (62.6%), the age group most interviewed was those between 30 and 50 (41.7%). Equally importantly, there is no correlation between the used sample and the real sample of interviewees. This is because the used sample was purposefully selected for the richness and reliability of the information interviewees offered. The elderly group was representatively the most targeted (44.4%), with only 16.7% of this sample being under 30.

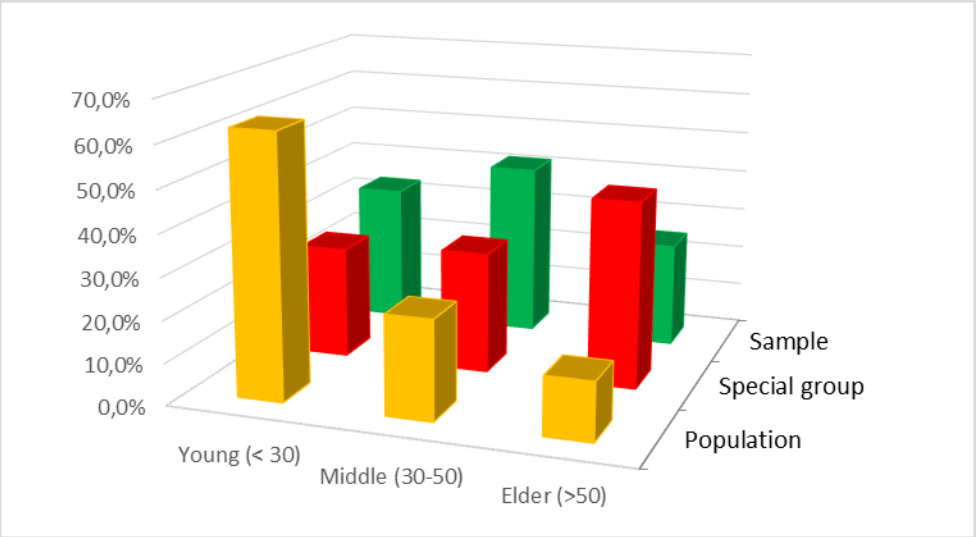


Figure 3c: Interviewee categorization by age

This bias toward elders is consistent with existing studies. Theoretically, the age class of informants in any research matters and here indicates that wisdom really does come with age: older people's knowledge and experience means they may make better decisions (Obbo, 2004; Parisi et al., 2003). Empirically, there are many studies that show informants' understanding of sacred forests depends on their age. Allendorf et al (2014) stated that "older people were more likely to know the meaning of the forest's name, especially those over 70 years" (pp 11). Similarly, Campbell's (2005) study finds that more young people (than older people) had private doubts about the power of sacred forests, although few made these doubts public.

Even though the population of the case studies are slightly different in terms of their number of males and females (Figure 3d), there is a bias toward males when it comes to the actual and

used samples of interviews. As indicated in the figure, only 12.5% of the actual samples are female. This figure drops to 0.0% in the special group of interviewees. This gender mix bias is compared to that indicated in existing studies of sacred natural sites and forests.

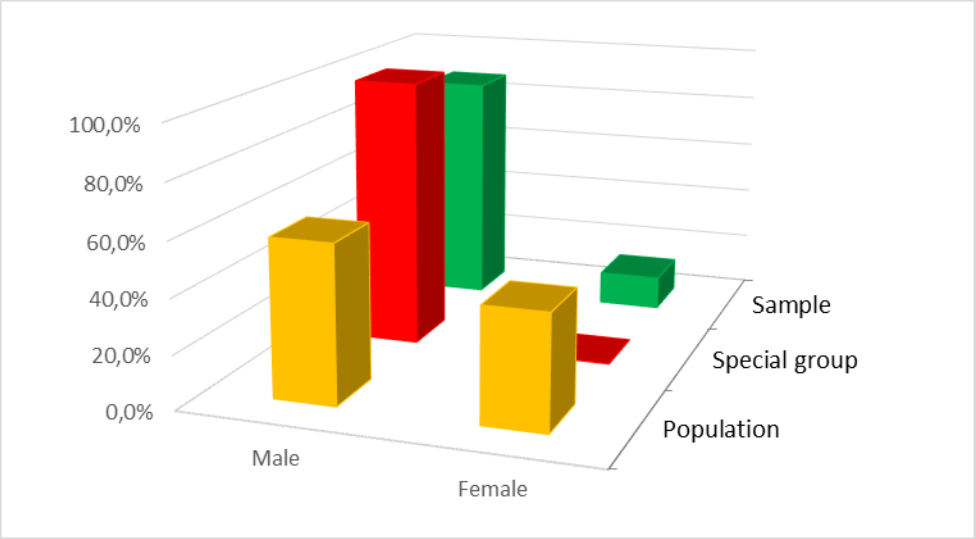


Figure 3d: Interviewee categorization by gender

In many cultures gender discrimination favours males and this is true of the ethnic majority in Vietnam, the *Vietnamese* or *Kinh* people. To *Kinh* people, especially in social history, women do housework and men are assigned roles of public participation and money earning (Hoang & Yeoh, 2011). This discrimination is evident in administrative institutions.From 2011-2016, 24.4% of the National Assembly members were women, nine per cent ofthe Party Central Committee were women, and 11.37%, 15.01% and 18.1% ofthe provincial, district, and communal administrations were women, respectively (Christoff et al., 2017).

There are a few sacred forest studies that have predominantly female informants. For example, a total of 11 participants were interviewed—nine women (80%) and two men (20%)—in Ringham et al.'s (2016) study and Campbell's (2005) study surveyed 76% women. Other studies have included an equal number of male and female informants when dealing with deep understandings of sacred forest and cultural issues (Shepheard-Walwyn, 2014; Campbell, 2005; Allendorf et al., 2014; Ormsby, 2013; Kumar & Kant, 2007). For example, Shepheard-Walwyn's (2014) approach has a good gender mix and distribution of ages for

both sexes, and for each site of the study, in an attempt to understand the current attitudes and values of the local communities towards the sacred natural sites of their culture, and conservation.

Data analysis shows that the literacy of local people is connected to understanding sacred forests.Even though the population of the case studies are highly bias toward illiteracy (Figure 3e), literate people were gradually favored both in the actual and the special group of samples of interviewees. As indicated in Figure 3e, up to 92.0% of the population of the case studies is unable to read and write. This figure sits in stark contrast toVietnam's national averages of 86.3% literacy formale ethnic minorities and 73.4% for female ethnic minorities (Walther et al., 2015). The figure especially shows 29.7% and 61.1% is the literacy of interviewees in the actual sample and the used sample, respectively.

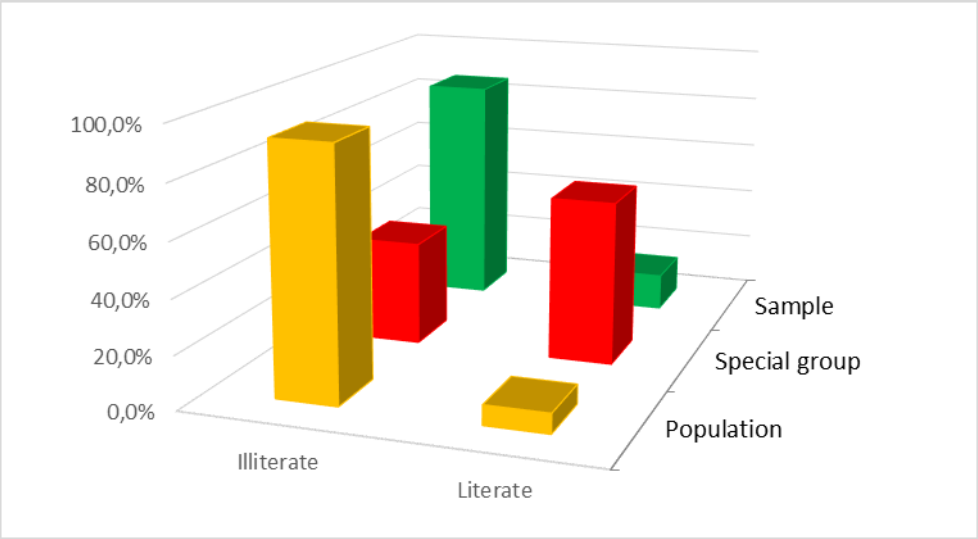


Figure 3e: Interviewee categorization by education level

Interviewees were also analyzed in terms of location. Most interview locations were flexible and interviewsoften took place in homes, sitting around afire. Outdoors, the researcher also sought out interviewees in the fields while they were working (Figure 3f). A large number of interviewees were found on the street, as shown in Figure 3f.

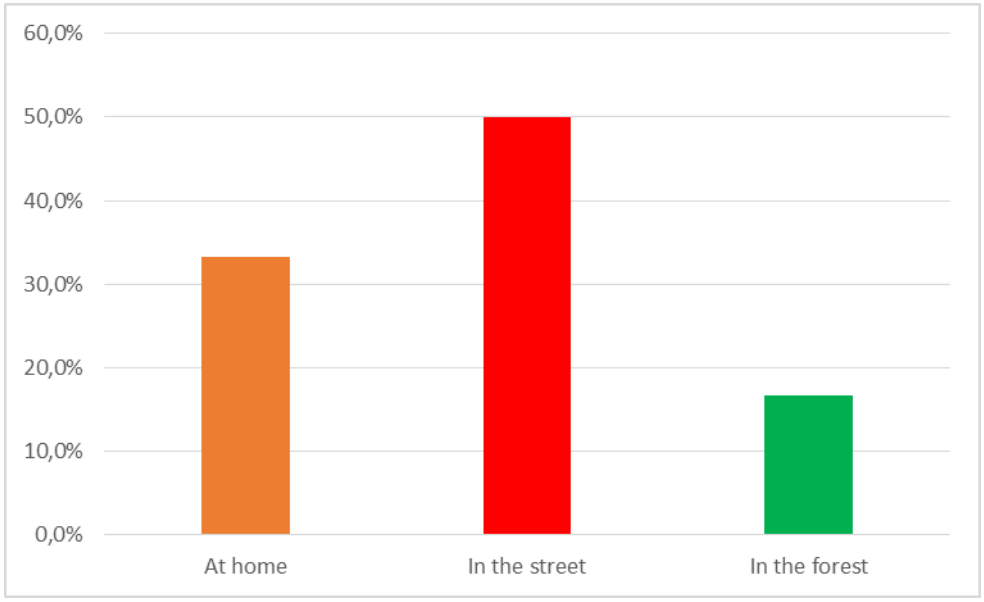


Figure 3f: Interviewee categorization by location

Interview times were also highly flexible, at times even occurring noon nap times (popular when people had free time) (Brunt & Steger, 2004). This flexibility meant interviews were also carried out while the researcher and his informants were having meals. The researcher's interactions with local people guided him as to the best times to engagewith his informants.

In regard to interviews at night, one interesting example of this was with *Mr. Dung*, a research informant from the first case study. Having been invited, the researcher went to *Mr. Dung*'s house to sleep for the evening. Late that night the second interview was carried out and it lasted three hours in the rural quietness and darkness.

3.3.6. Interview and observation in the field

As indicated in Chapter 2 (Section 2.3), the research fieldwork used an embodiment approach to collect primary data, classified as experience knowledge by Carayannis and Campbell (2019). This primary data came from two main sources: observing and interviewing. In an ethnographic study, it is advised by O'Reilly (2012: 11) that researchers participate, overtly or covertly, in people's daily lives, watching what happens, listening to what is said, and asking

questions. Therefore, watching, listening, and asking questions are significant skills when doing ethnographic fieldwork.

Embodiment involves, as indicated by Litalien (2017), being present and responsive, so as to become aware of places in the body where we may not move so freely. When we embody, we are getting more in a habit of thinking more deeply about that process of gaining knowledge and starting to realize what things we do not understand (Sciencechoreography, 2017).Embodiment helps shape the "what" questions, and the follow up questions of "how" and "why".

a) Observation

While"hanging around" (Shaffir, 1999: 677), or "being there" as an insider coming to understand local life, the researcher used this "body-mind" to observe. The researcher activated his "body-mind" to help him explore stories, memories, and emotions stored and hidden in the deeper muscles and tissues of the body. This makes your senses more sensitive and creates a sense of falling in love with the world, and becoming curious and childlike with it.

Embodiment was important tothe researcher in coming tounderstandlocal culture as an insider and in catching subtle cues in the responses of interviewees. This was helpfulbecause interviewees might have feltthe need to hide information about some of their usual practices, or at least not talk openly about these issues, if they perceived the interviewer as being a representative of the authorities (Branthomme et al., 2008; Gladwin, 1989). Catching subtle cues during qualitative research inquiries helps one tobetter understand participants' feelings, opinions, and experiences (Denzin, 1989, cited in Rahman, 2016). Similarly, ethnography requires researchers to "enter the natural settings for purposes of understanding the hows, whys, and whats of human behaviour" (Shaffir, 1999: 676). Nguyen (2015) indicates that, as well as having the benefit of catching subtle cues, being a cultural insider is an advantage in terms of levels of acceptance.

The value of fieldwork lies in collecting and recording observational data. Drawing upon ethnographic methods, it is advised that direct, personal observation is key to conducting good research (Schensul, et al., 1999, cited in Lewis, 2000). Chieu (2012) states that

observational information provides context forthe information gained in interviews and group discussions.

Observational information is also useful in that it can be cross-referenced with information provided by the interviewees and obtained from secondary data sources. Across the course of this research, some differences were noted in the official record of certain events and in how they were related by the interviewees. These differences are integrated into the analyses of the information obtained using other data collection methods.

Taking Taylor and Bogdan's (1984) advice, cited in Muli (2016), the researcher was not overwhelmed by what was discovered in the field, but instead remained focused and confident. In terms of observation, the researcher used two methods interchangeably: the participating observer and the observing participant (Kothari, 2004; Beckley et al., 1999; Bernard, 1994, cited in Son 2012). The former helped the researcher remain an outsider while participating in informants' lives and living inthe same conditions. Usingthe latter, the researcher became one of the villagers and studied their lives from an insider's perspective.

Several sources of observational data were employed. In "hanging around" (Shaffir, 1999: 677), the researcher observed the sacred forests and landscapes of the villages. Taking the advice of Gladwin (1979), the researcher involved himself by helping the people to do their work where possible. FollowingChieu's (2012) example in terms of doing qualitative field research in Vietnam, the researcher observed the daily activities of local people as they made their livelihoods, and the staff of local authorities as they performed their duties. The researcher became more accepted as heshared in the conditions of daily life and participated in the household and farm workofthe communities. He attended birth ceremonies, a death ceremony, new house parties, and wedding ceremonies. The researcher also participated in rice harvesting, fishing in the lake, and collecting non-timber forest products (NTFPs) with the villagers.

Embodiment is helpful because, as argued in the previous chapter, when we embody, we engagein thinking more deeply about the process and in doing so we realize what we do not understand (Sciencechoreography, 2017). This is significant to qualitative research inquiries in that it increases the researcher's ability to understand the participants' feelings, opinions,

and experiences (Denzin, 1989, cited in Rahman, 2016). Further, ethnography requires researchers to "enter the natural settings for purposes of understanding the hows, whys, and whats of human behaviour" (Shaffir, 1999: 676).

Lewis (2000) indicates that the main challenge for ethnographic researchers lies in the transformation of observations into field notes, which then serve as a record of experiences for future reference. The researcher used several methods for recording observational data. Whenever possible, the researcher noted exact quotes from conversations or informal meetings with research participants. Summaries were then written of events and conversations immediately after they had taken place. Another method for recording observational data as per Chieu (2012) is for photos to be taken.

b) Interviews

The researcher used his understanding of local culture as an insider to position himself so as to be more easily accepted by interviewees and to avoid mistakes when in asking questions.

Trust building

According to Lewis (2000), field visits function to gain the trust and confidence of people with whom ones hopes to work in close collaboration. In Vietnamese culture, trust is important in connecting to people. Nguyen (2015) stresses that being approached by a complete stranger will often stir up uncertainty, caution, and unwillingness in the Vietnamese. The researcher's role as an insider was optimized in a number of ways.

To ensure relationships were on a positive footing, the researcher made sure he was introduced to potential interviewees via acquaintances or someone the interviewees knew and with whom they had a good relationship. Those people were often officials at commune or district levels, heads of villages, or friends of the researcher.

Introductions included brief overviews of the research, after which the potential interviewees were invited to join the research. If they agreed to participate, details of the research were given in the form of information sheets (Appendixes 07, 08, and09). They were asked about the opinions of sacred forests in their village. Detailed questions were not revealed, but the

researcher was prepared to present them. These steps essentially fulfilled two purposes: dealing with the ethical considerations of the research by obtaining consent of the intervieweesto tape record and transcribe interviews; and setting out explicitly what the interviewees could expect from the researcher in the final product.

Before the interviews, general chat was initiated to develop relationships with interviewees. According to Nguyen (2015), the best way to build trust with Vietnamese interviewees is toask about their family.Vietnamese localstrust outsiders more if they are treated as you would treat a friend (Luu et al., 2014). This approach was undertaken to avoid coming across as a scientific authority and causing people to instinctively behave obediently (Ent & Baumeister, 2014). When people give statements they think investigators want to hear, data is compromised.

A good working relationship with local people is easier to establish when the interviewer shows respect and is willing to learn from the resource users in terms of how they use and benefit from their local resources (Branthomme et al., 2008). To avoid insulting research participants, the researcher followed the cultural norms of local people by assuming the role of learner and invited guest, and carefully listening to what was said during the interviews (personal experience from years working for the government of the country was drawn upon). Nguyễn (2013) advises that,if possible, researchers should avoid referring to themselvesas "interviewers" (*người phỏng vấn*) or "researchers" (*người nghiên cứu*). This is to avoid conferring authority onto the interviewer and creatinga formal distance between interviewer and interviewee.

This fieldwork also used traditional *Vietnamese* protocols such as drinking alcohol (*uong ruou*), and drinking tea (*uong tra*) to engage with the community in a mutually acceptable way. Alcohol is routinely offered to guests as a traditional show of hospitality. Typically"guests would consider themselves unappreciated if they were not invited to a cup of alcohol" (Luu et al., 2014: 6). This is true in both rural and urban areas. Nguyen (2015) states that it is also completely normal for a meeting to be at a drinkingvenue; this helps the *Vietnamese* build relationships (especially between males), as they tend to feel strained informal "work-like"/"research-like" settings.

Issues of manipulation

As an ethnographer, there are ethical dilemmas in the field. One is being able to negotiate the roles of independent university researcher (outsider) and member of the local community (insider). Identity is contextual and the local community may see only an “outsider” in the professional context, but may also see an insider in the ethnicity context. The challenge is to retain one’s “autonomy” while immersed in the community’s space. This means being aware of the power differentials, including one’sown power as a researcher and how this can change perception and behaviour. With this in mind, it is advised that research relationships be non-hierarchical due to the assumption that the "hierarchical and controlling" nature of experimental research methods can be disruptive and offensive to some research participants (Bierwert, 1999: 123; Jayaratne and Stewart, 1991, cited in Lewis, 2000).

As indicated in Lewis (2000), this goal can be achieved in a number of ways, by:down-playing one’srole as a researcher and academic and self-identifying as "learner"; allowing research participants to define their own experiences in their own words; and by disclosing personal information to the research participants. In effect, discussion avoided the tendency to transform the researched into "objects of scrutiny and manipulation". The more open-ended, dialogic process of inquiry inherent in ethnography was a more culturally suitable approach. *Vietnamese* learning attitudes and communication styles tend to be passive. This results from a hybrid of Vietnamese culture and colonial and socialist modernity.

Likemany Asian cultures, *Vietnamese* culture is affected by Confucian philosophy,in which people tend to aim for consensus and agreement among community members (Hinkel, 2002, cited in Lap & Truc, 2014). One example of the influence of this philosophy is found in Vietnamese linguistic politeness (Hy, 1990; Nguyen, 1956), wherein the concept of *lẽ,* or respectfulness for others (Pham, 2011, cited in Lap & Truc, 2014), stands in for “politeness” (Le, 2001). According to scholars, this concept suggests that people are un-equal and, to be polite, people should communicate in a way that reflects social hierarchies. In hierarchical relationships, people tend to be cautious about expressing ideas, especially to superiors (and expressing ideas directly is considered impolite).

Vietnam has been influenced by Western colonialism from the beginning of French colonial scholarship on Indochina, through the French and American wars in Vietnam, and now in the era of globalization following the adaptation of the *Đổi Mới* (renovation) policy (Wilcox, 2010). As Raffin (2008) argues, while colonialism does not mean much to Vietnamese who have not experienced colonial rule, it nevertheless continues to influence their everyday life. Vietnam has also been impacted by an authoritarian communist modernity that seeks to emancipate Vietnamese citizens by creating a rational society. Critical thinking is important for learning (Paul, 1990; Boehrer & Linsky, 1990), however this authoritarian culture prevents *Vietnamese* developing critical thinking skills, which inhibits them asking questions and challenging authority in working environments and in government.

Having taken into consideration the Vietnamese norms based on gender, age, and social position identified by Nguyễn (2013), the language style used in interviews was that of casual daily chat in a formal style of middle- and low-class educated language. Following the casual daily speaking norm of the *Vietnamese,* the researcher presented himself and addressed the interviewees in accordance with their age:"*em"* was used for persons of a younger age; "*anh"* for older males; and "*chị"* for older females. The researcher referred tohimself using "*anh"* with interviewees younger than himself, and "*em"* with those older than himself. Withpeople of the same age, the research used first names. This created a more casual communication relationship than using the formal and neutral pronouns "*tôi"* (self) and "*bạn"* (others).

As advised by Branthomme et al. (2008), the researcher keptthe number of interviewers in each household to as few as possible (i.e. two persons) to avoid giving the impression that outsiders dominated the process. The comfort of the participants was prioritised; they had control over the location, time, and length of the interviews and whether photos were taken. The researcher was also sensitive to the constraints facing women when undertaking interviews. Branthomme et al. (2008) indicate that rural women are often busy and shy with strangers (men and women). Using female interviewers can help respect female space.

Following Schensul and LeCompte's (1999) example, in Lewis (2000), the researcher chose not to presume any answers about how local people conceptualize their environment, and instead allowed themes to emerge from discussions with the research participants. This was important because the researcher's perspective and understanding of the world is constrained

by his own cultural and conceptual baggage, having come from the majority Vietnamese group, and he wanted to negate the impact of that as much as possible. The modern scientific world view becomes problematic when confronted with complex ecological systems and human relationships. The world is very complex and varies widely across spatial and temporal scales, which renders the generalizations of positivistic science inadequate to the task of furnishing practical prescriptions for sustainable resource use. Positivistic science has tended to simplify and overuse such complex ecological systems, resulting in a series of problems of resource exhaustion and environmental degradation.

Asking questions

Embodiment is helpful in asking not only the "what" questions, but alsothe follow up questions of "how" and "why". Being embodied informs one's questions (Sciencechoreography, 2017). Asking these types of follow up questions is especially important in qualitative inquiries that require a deep understanding of phenomena (Taylor et al., 2015; Dörnyei, 2007; Liamputtong & Ezzy, 2005). As an outsider, the researcher was mindful of asking these types of questionsat the right time and in the right context. At the same time, the researcher used his understanding of local culture as an insider to catch subtle cues in people's responses.

As the interviews were carried out, the sub-research questions generated many more detailed questions, which can beclassified as exploring (according to Patton (1987), cited in Britten (1995)): behaviour (what they do); opinion or belief (what they think); emotion (what they feel); and backgrounds or demographics. In addition to this, the field research adopted Flick's (2014) classifications of the five main types of research question, presented below.

Background information gathered oninterviewees was incorporated into opening interviews. These began with friendly greetings ("Hiya, how are you?") and questions concerning the lives and families of interviewees. After this, the researcher explained more about the research to put the informant at ease; telling he/she the motivation for knowing what he/she knows; and followed up with a "grand tour" description and question ("tell me about it") to get the informant talking (Gladwin, 1989).

It is advised that open-ended questioning stylesbe used, seeking explanations and opinions rather than yes-or-no-answers (Branthomme et al., 2008; Gladwin, 1989). In this regard, the researcher tried toevoid using ‘yes’ or ‘no’ questions like ‘do you like the forest’ or ‘hown many sacred forests are there in your village’, etc. Instead, open-ended questions were used that allowed the interviewee to share their experience in depth andgavethem freedom to express their thoughts. Some examples of the open-ended research questions used are: “how do you feel about the sacred forest”; “can you describe what benefits the forests bring to people in your village”; “tell me more about your contribution to the practice of sacred forest ritual in your village”.

Unstructured questions were used strategicallytoallow the interviewees to guide the conversation, letting them focus on what they think is most important. These questions usually helpedincrease the length of interviews and elicited richer and deeper insights. Examples of the unstructured research questions used were, “tell me about your understanding ofsacred forests”; “what dopeople in your village do with sacred forests”; “why don’t you write down your knowledge of sacred forest ritual practice”. Incontrast, structured questions were used to lead the interviewee to provide specific information pertinent to the research. These questions were repeated at every interview and this allowed the researcherto compare the responses of all the interviewees. For example, “what rituals are practiced in relation to sacred forests in your village”; “as a villager, can you identify what benefits that you have taken from the sacred forests”; etc.

Probing—using non-leading ‘helper questions’—was advised by Branthomme et al. (2008) and Gladwin (1989). When the informant is reluctant, Gladwin (1989) suggests stating“I don't really know anything about this cultural scene”, indicating that the informant is an expert. Some examples of the probing questions used here in were: “tell me more about sacred forests in other villages or communes or districts”; “and can you compare that to your village”; “what do you mean when you say the sacred forest is our ancestor”. The researcher avoided asking questions that may have adversely affected the answers given; this included questions beyond his knowledge or experience.

The researcher often used the last question as an opportunity to allow the interviewee to share any other thoughts or opinions they had, asking: “thank you for all that valuable information,

is there anything else you'd like to add".As Branthomme et al. (2008) and Gladwin (1989) articulated, ending this way allows the interviewer to get information that might have been missed. Italso acts asa cross-check of whether the respondent and interviewer understood each other.

Closing

As most interviews arevery informal, there is no clear "wrapping up" in qualitative interviews. The interviewer and interviewees naturally finished the interviews, and continued chatting about non-research issues, such as the interviewee's children.

Instead of a formal wrapping up, the researcher closed interviews by clarifying information that he may have missed (names, locations of houses, number of children). Doing this at end made sureinterviewees did notsee their participation with the researcher as formal (as they might have if asked at the beginning). McKinn et al. (2017) give good examples of using discussions at the end of interviews to get basic details; this strategy suits *Vietnamese*'s culture.

In the post-interview phase, the researcher expressed appreciation for the participants by saying an extended "thank you" for your time and information. This not only showed honest appreciation, but also care about the hardships that local people face. In *Vietnamese*'s culture, chatting after interviews like this is a way to express thanks to the participants.

c) Post-fieldwork

After the fieldwork, the researcher stayed in touch with some of his interviewees. Local informants contact details were taken, especially those with mobile phone numbers, as well as any other means of keeping in contact with people.

Maintaining communication with the research informants meant the researcher could discuss issues related to this research further when needed. This happened with *Mr. Din* in the first case study. After going back to *Hanoi*, the researcher made several calls to seek further information. This also happened with gatekeepers such as *Mr. Diep*, head of forestry at the provincial level, and *Mr. Hong*, who was a research helper at the district level. These calls

also occurred because the researcher was aware of his responsibility to share the research outcomes with the local people, due to their enormous contribution to this research.

3.3.7. Timeline

Qualitative research field work is time consuming and canlast months or even years (Bhattacherjee, 2012). This fieldwork took nine months (divided into three trips),even with the advantage of a primary connection with the case studies (through working with local people in the country for almost twenty years).

3.3.8. Difficulties and solutions

Researchers doing fieldwork often encounter difficulties.In dealing with this the researcher followed the advice of Cortis et al. (2009), making the research design as flexible as possible to allow for the accommodation of emergent issues and ongoing decisions reflecting what had already been learnt. Lincoln and Cuba (1985), cited in Bhattacherjee (2012),warn that this flexibility is not researcher laziness or sloppiness, but rather adaptability to the realities and viewpoints of those under study.

The fieldwork plan was changed several times due to a number of incidents. Heavy rains caused floods and landslides that prevented the researcher from travelling to local villages, particularly by motorbike. The researcher used this time to chat with the motorbike driver. As all local people in the research areas are farmers, they wereoften busy with their farming activities. Thus, sometimes interviewees were not available for their first appointment. By "hanging around" (Shaffir, 1999: 677) anyway, the researcher found alternative research participants.

As in other parts of the country, electricity blackouts occurred frequently in the research areas during the summer (during the fieldwork), often lasting from noon to midnight four to five days per week. This affected meetings with people in the evenings (Chieu, 2010). However, the researcher used that time to socialize the local people. Being with them at night helped build trust and contributed to his acceptance in the communities. The fieldwork was also delayed (for one month) by the Vietnamese "*Tet*" (Lunar New Year), which is similar to the Chinese Lunar New Year; the researcher used this time toreview data and write up field notes.

Another problem that was encountered is that some research participants felt thatthe research would not instantly generate benefits for them, and so did not respond to some of the research questions seriously, givingonly brief information.The researcher addressed this by explaining how valuable it was to gain an in-depth understanding of how they saw the issues.

3.4. Data analysis

This section justifies why and how this research useda qualitative strategy for data analysis. Itmostly follows Glaser and Strauss's "constant comparative method", but the information on how to conduct such a process comes from secondary writing rather than their original work. For example, some of the most influential readings on the researcher were Creswell (2013), Bhattacherjee (2012), and Robson (2002). As suggested by these scholars, the researcher usedan inductive process, in which data is developed into themes, combining participants' interpretations with his own interpretations, and finally into theories. This section offers a rich description of how the researcher used this "inductive process" to analyse the research data.

3.4.1. Why a qualitative focus over quantitative one

This research uses a qualitative strategy for data collection and data analysis. The data analysis was also heavily dependent on the researcher's analytic and integration skills, as well as his personal knowledge of the social context in which the data was collected. Itresembles qualitative analysis as characterized in Bhattacherjee (2012) andRobson (2002) in its emphasis on "sense making" when attempting tounderstanding a phenomenon. Other studies also informed the transforming of qualitative data into quantitative data (Johnson & Onwuegbuzie, 2004).

3.4.2. Theoretical frameworks for qualitative analysis

As stated in Chapter 2 (Section 2.2), a philosophical research stance helpsdirect the questions that are asked, the observations thatare made, and the interpretation of the data. Sutton andAustin (2015) highlight that data interpretationis impacted by the theoretical standpoint taken. This prompts the question of how to analyze a vast set of qualitative data acquired through participant observation, in-depth interviews, focus groups, narratives of audio/video recordings, and secondary documents?

In accordance with the philosophical stance of this research, interpretations need to be grounded in (or based on) observed empirical data, which is the theoretical framework of grounded theory (Bhattacherjee, 2012). This is because, as the discussion in Chapter 5 (Section 5.3) reveals, understanding sacred forests in Vietnam has not been grounded atlocal or household levels. Furthermore, the data analysis herein needs to employ phenomenological theory (Robson, 2002) because it concerns analysis of the sacred forest phenomena associated with conscious experiences – in this case the judgments, perceptions, and actions of the local people.

3.4.3. Supporting tools

Qualitative data analysis involves writing and coding data, managing the tasks of marking up, cutting, sorting, reorganizing, and collecting said data (Weitzman & Miles, 1995, cited in Basit, 2003). Vaughn and Turner (2016) suggest using a systematic process to organize and highlight the meanings of assigned codes. These tasks used to be done by hand and are increasingly managed using digital support, such as the Microsoft-Office program (with Word and Excel tools) or more modern Software, such as "Computer Assisted/Aided Qualitative Data Analysis Software" (CAQDAS such as Nvivo, Atlas ti, Transana) (Saldaña, 2015).

The latter is much more advantageous if the analysis deals with thousands of pages of data. However, it is argued that CAQDAS has its own limitations because of the way its tools are organized, and the way this organization forces researchers to follow particular analytical logic. For example, although there is evidence of researchers using NVivo for qualitative data analysis (Muli, 2016; Jones, 2013; Nguyễn, 2013; Cidell 2010), this tool is challenging when different elements of the work get separated into different folders that cannot be viewed at the same time, thus breaking up the workflow and the analytical reasoning.

The data analysis tasks and writing process of this research employ a combination of these two approaches. The manual approach is necessary because in addition to coding words and short phrases, it is advised to never overlook the opportunity to "pre-code" by circling,

highlighting, bolding, underlining, or coloring rich or significant particular quotes or passages that strike the researcher as “codable moments” worthy of attention (Saldaña, 2015).

In relation to the latter, Leech and Onwuegbuzie (2011), referred to in Ulin et al. (2005), indicate that the availability of computer software to conduct qualitative data analysis has increased in recent decades, and includes programs such as QDA Miner, Ethnograph, NVivo and Atlas/ti. Each of these programs has its own unique features, but Leech and Onwuegbuzie (2011) state that these programs are very similar to one another and facilitate many of the same analyses. That said, Didora (2010) claims that NVivo software is particularly useful in helping researchers organize, manage, code, and analyse qualitative research material and has the primary benefit of being able to merge separate documents and still identify which work provides which piece of information (Didora 2010).

There is evidence that many researchers use NVivo for qualitative data analysis (Muli, 2016; Jones, 2013; Nguyễn, 2013; Cidell 2010). However, the researcher of this study abandoned NVivo after the limitations of its’ interface (or rather the way its tools are organised) forced the researcher to follow a particular analytical logic.

Instead, the researcher mostly used Microsoft Office, a family of client software that contains Microsoft Word, Microsoft Excel, Microsoft Power Point, etc. Microsoft Word functions wereused for producing tables, table sorting, and inserting comments. Microsoft Word functions were used to establish themes and tag corresponding themes. Microsoft Excel supported qualitative data analysis, with the sheet structure acting as a database that could format key informants and group data in a table, and add more fields where data is sorted and themed. The interview data was text-based and descriptive titles/themes helped organize it.

3.4.4. Data analysis process

The data collection process concluded after the 48 interviews were completed and a set of field observation notes had been compiled. The analysis processed the data through “three concurrent ‘flows of activity’: data reduction, data display, and conclusion

drawing/verification" (Miles & Huberman, 1994 cited in Robson, 2002). These three "flows" occurred simultaneously throughout this research (Figure 3g).

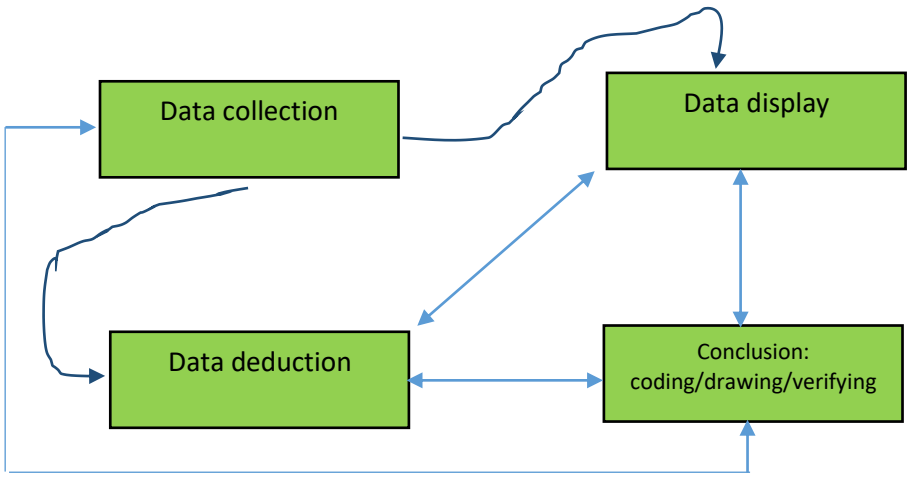


Figure 3g: Data analysis process

Sources: Adapted from Amaratunga et al. (2002).

a) Preparation and organization of the data

"Data display" is arranged in forms commonly used in qualitative research, using boxes, tables, and diagrams in order to better present the research findings (Hoang, 2012). Data is organized into a research database by iterative readings, and development of lists of initial themes (Lincoln & Guba 1985, citing in Lewis & Sheppard, 2005). It is maintained by several files containing secondary data sources (eg. official documents), participant-revised interview transcripts, and a journal containing field observations. Also, the 48 interviews were transcribed manually, instead of using software. Issues related to translation wereaddressed by consulting Nguyen (2015). As advised by Anney (2014), Lincoln and Guba's theoretical guideline for ending data collection is used to assess the sufficiency of the database, and it is determined that, due to the repetition of information in the interviews, additional data would yield no new information of use to this research (Lewis, 2000).

b) Review/identify a framework

“Data reduction” was carried out so that, from the wide range of data and information collected, only key points closely relevant to the research focus were selected. The database was read through several times to get a sense of it as a body of evidence rather than as separate bits of information. This prepared the researcher for the next stage of analysis – coding and concluding.

c) Coding/sort data in to the framework

Coding and “conclusion drawing” uses the reduced data to conclude ideas based onthe information about which the interviewees and informants were most informed and and that which they discussed the most. The “opening code” is phased into two stages: identifying and categorizing (Bhattacherjee, 2012; Denzin & Lincoln, 2011). According to Bhattacherjee (2012), identifying concepts and key ideas potentially related to the phenomenon of interesthidden within the textual data involvesexamining the raw textual data line by line to identify discrete events, incidents, ideas, actions, perceptions, and interactions of relevance, then coded as concepts (hence called *in vivo codes*) into categories, sub-categories, and parent themes.

Several qualitative research texts recommend initially “coding for themes” (e.g.Nguyễn, 2013). This is disagreed with by Saldaña (2015), referencing Rossman and Rallis (2003), who explains the difference as “thinking of a category as a word or phrase describing some segment of data that is explicit, whereas a theme is a phrase or sentence describing more subtle and tacit processes” (pp. 15-16). A category is different from a theme in that it conveys a meaningful idea drawn from data, whilea theme groups those categories into a topic basket (Nguyễn, 2013). For example, “leaves for sauces” is a sub-category of the “vegetable” category, among other categories such as “fruit and nuts”. The “vegetable” category is a sub-category of the last category, namely “food”. As indicated in above, the last sub-category is a sub-category of its parent sub-category (“economic”). “Economic” category is the first sub-category of the original category of “significance” category.

As advised by Saldaña (2015), Bhattacherjee (2012), and Denzin and Lincoln (2011),each main category is made up of sub-categories. For example, the category “*concept sacred forest*” contained four sub-categories: *“chu so huu”* (ownership); “*nguon thu nhap*” (income);

"*su so hai*" (sacredness"); and "*le hoi*" (ritual). The category "*nguon thu nhap*" (income) has thesub-categories:"*thức an*" (food); "*go*" (timber);and "*cui dun nau*" (fuel/wood).

The data is coded using a system of folders and files, which performthe function of "Tree Nodes" in NVivo. Three main themes were created, namely *"khai niem rung thieng"*, or sacred forest (for coding participants' theoretical perceptions of this concept), *"su da giang rung thieng",* ordiversification (for coding discussions about the *diversification* of sacred forests), and *"tam quan trong/y nghia cua rung thieng",* or significance (for coding the significance of sacred forests). These themes are each discussed in independent chapters of this thesis.

3.5. Reporting style

In exploratory research, this presenting style resembles what Stebbins (2001) characterizes as a creative, imaginative, and fiction-like style of writing. This writing uses "metaphor, story line, recurrent theme, and use of vivid description" (p. 42). Resembling auto ethnography, it "seeks to describe and systematically analyze personal experience in order to understand cultural experience" (Ellis et al., 2011, p. 273). Using this form of self-reflective writing, the focus is on exploring personal experiences, stories, thoughts, feelings, and observations as a way to understand the social cultural context of sacred forests in Vietnam.

However, the researcher was hesitant to follow this style very strictly. In reality, the adaptation of this research contains less imagination and creativity, at least in the writing of it, than Stebbins would like. Thismay be because of a limited ability to handle the distinctions between writing imaginatively and writing formally, precisely, and academically as research conventionally should be. This research needs to satisfy the style of writing necessary in a PhD dissertation (Nguyễn, 2013), which follows certain conventional forms.

Quantitative descriptions are still used to deliver as precisely as possible impressions of research data, despite Stebbins's advice toresist any quantitative descriptions in exploratory research. Stebbins argues that a quantitative generalization, such as "80% of the respondents believe/say that…" is misleading, because questions in interviews are often inconsistent. Instead phrases such as "mostly, "about half", "the majority of", and so on are recommended.

3.6. Rigor and ethical issues

This section addresses the quality of the research. Owing to the qualitative nature of an ethnographic design, such concerns are more significant than with experimental designs,where reliability and validity are accounted for at the start (Lewis, 2000). Issues related to quality (trustworthiness or rigor) and ethics are discussed below.

3.6.1. Trustworthiness

In favouring Morse et al. (2002), this research usesthe terms ‘validity’ and ‘reliability’ whenaddressing quality issues, even though different terms have been suggested to replace these two terms when applied in qualitative research (such as quality, rigor, and trustworthiness) (Davies & Dodd, 2002; Lincoln & Guba, 1985; Seale, 1999; Stenbacka, 2001). On the other hand, Morse et al. (2002) argue that qualitative studies should not be marginalised by mainstream science in this way. Patton (2002) suggests that in qualitative research validity also includes reliability, since the former implies and encompasses the later.

Specifically, this research uses three main indicators (Lewis, 2000) when addressing the issues of validity and reliability, which are:

> **Internal Validity**: Ensuring that the study’s evidence and evaluation of evidence reflects ‘reality’ as it is perceived by the study’s participants.
>
> **External Validity**: Also called generalizability, it refers to the degree to which a study's findings can be extended across groups.
>
> **Reliability**: Demonstrating that operations such as data collection procedures can be repeated with the same results.

a) Reality (Internal Validity)

Bhattacherjee (2012) surmises that the *internal validity* of interpretive research is improved by providing evidence of the researcher’s extended engagement in the field: by demonstrating data triangulation across subjects and data collection techniques; by maintaining meticulous data management and analytic procedures such as verbatim transcription of interviews and

accurate records of contacts and interviews; and by making clear notes on theoretical and methodological decisions. This allows an independent audit of data collection and analysis (Bhattacherjee, 2012).

Excepting for issues of triangulation, all other issues related to data management have been addressed in this and the previous chapter. These two chapters are underpinned by the belief that "if you want a different outcome, you have to do something differently" (Brabazon, 2017). In terms of justifying the methods used, the researcher was invested in the "why" of research as much as the "how". This is because the outcome of the process of doing something is un-reliable if the methods employed are not justified properly (showing that all the alternatives have been considered)(Brabazon, 2017).

In relation to triangulation, Lewis (2000) recommends using two key strategies to ensure the internal validity of research: "triangulation" and "member check". Triangulation is defined as "a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study" (Creswell & Miller, 2000, p. 126).This narrative account is valid because this process is used and it relies on multiple forms of evidence, rather than a single incident or data point in the study (Creswell & Miller, 2000).

Creswell and Miller (2000) indicate that there are four types of triangulation: across data sources (i.e., participants), across theories, across methods (i.e., interview, observations, documents), and among different investigators. According to these scholars, qualitative inquirers often exercise this validity procedure by providing corroborating evidence collected using multiple methods, such as observations, interviews, and documents, to locate major and minor themes. This research uses three sources of data: field observations made by the researcher; interviews with 48 research participants; and various secondary data sources. In accordance with this, the data analysis process compares data between the corpus and the interviews. These two types of data provided consistent (and no contradictory) results. Furthermore, the data wasalso tested against a cultural insider's intuition, sensitivity to, and understanding of the culture.

Lewis (2000) indicates that the “member check” technique involves taking evidence and interpretations back to the people from whom they are derived and asking if the interpretations are plausible and realistic. Lincoln and Guba (1981) suggest exercising member checks continuously throughout the study. This research exercises member checks on two levels. First, participants were asked to review the transcripts in the second field study to ensure that their testimonies were recorded accurately, allowing them to double-check their claims and assertions. This provides respondents with an avenue to change statements if they feel those statements do not adequately reflect their perception of the world. In addition, to prevent misinterpretations of evidence from entering the final report, some participants wereinvited to review draft copies of thesis chapters.

Themes and sub-themes were also checked for consistency and coherence.In this regard, the researcher used Nguyễn (2013) to randomly check the validity of the coding. To do this, some themes werepicked and theircoded data was presented to a Vietnamese PhD colleague to seeif he found the themes and the coding matched. Only a few minor variations were found, none of which influenced interpretations or results (Gladwin, 1989).

b) External Validity (Generalizability/Transferability/Reliability)

This research is in line with Lewis (2000) in thaton one hand it recognises the uniqueness of the culture studied, and on the other hand it makes it possible for other researchers to make use of the results. This is significant because, ethnographic studies being unique, some researchers argue that neither their results nor their techniques can be applied anywhere else. As with Lewis (2000), these scholars tend to givetheir research sites special conditions by developing idiosyncratic terminology. However, these threaten the scientific value of their studies, because one of the hallmarks of good research is the extent to which it increases our knowledge of human life in general, not just knowledge of a particular group.

To avoid making incorrect and inappropriate generalizations about sacred forests, this researcherhas aimedto learn usingtheir particular experiences and perceptions of their home environment, and not to determine what experiences and perceptions exist generally within the 53 communities. This is for two reasons: firstly, the cultural diversity and plurality of 53 ethnic groups in the country, and the two communities in particular, is enormous, and even

within large national associations such as the *H'Mong* group, there is recognition of culturally distinct sub-tribal groups. The people of these different tribal groups all possess common cultural practices and traditions, but also demonstrate subtle variations of common cultural artefacts. These range from their oral histories to their spoken language. Second, cross-group comparisons may be invalid because of the unique historical experiences of different tribal groups within the two communities.

In line with Bhattacherjee (2012), this research provides rich, detailed descriptions of the research context ("thick description") and thoroughly describes the structures, assumptions, and processes revealed in the data, so that readers can independently assess whether and to what extent the reported findings are transferable to other settings. As a result, assessment of the generalizability of this research should be left up to readers, or, more appropriately, members of the 53 ethnic groups of the country who may wish to apply the findings to their own situations. They may do so with a full understanding of how the results were obtained and the philosophical assumptions that informed the investigation.

c) Reliability (Instead: dependability or consistency)

As an ethnography research, it argues that there is no single benchmark from which one can take repeated measures and establish reliability in the traditional positivist sense (Lewis, 2000). Therefore, this research follows Lewis' (2000) idea of using alternative indicators, namely "dependability" or "consistency". Accordingly, rather than demanding that outsiders derive the same results from the data, one wishes outsiders to concur that, given the data collected, the results make sense: they are consistent and dependable. Lewis (2000) advises that the primary technique that ensures the results are dependable is triangulation.

3.6.2. Ethical consideration

It isacknowledged that ethical principles apply to all spheres of human activity, as ethics essentially serve to identify good, desirable, or acceptable conduct (National Health & Medical Research Council, 2007, cited in Brydon & Fleming, 2011). Ethical guidelines for research are more than do's and don'ts. They permeate all aspects of the research process: official requirements (eg. consent forms – ethnical applications); dealing with data collection; and data analysis. They havetwo primary functions: to protect the welfare and rights of

participants; and to facilitate research that benefits the researcher's community and/or human kind.

This research adopts a less formal approach to this issue. As discussed in Section 3.2, the presentation of ethics paperwork, such as information sheets, consent forms, and withdrawal of consent forms, was conducted as casually as possible to minimize their presumed seriousness. This wasa result of consulting Nguyen (2015), who indicates that ethics applications are a foreign concept in Vietnamese research, despite being routine in a Western research context.

It is made clear to the participants that this paperwork is part of the normal routine for academic research in a western model. In addition to this, the researcher maintained a casual attitude while informing people that their information would bekept confidential and they had right to withdraw from the project. This was necessary to avoid them thinking that the interviews involved something more serious than they thought, making them less comfortable in the interviews thanthey otherwise wouldbe.

In reality, Vietnamese people often do not understand why, when they have agreed to help, interviewers still need them to sign paperwork stating that they have agreed and understand their right to withdraw. In Vietnamese culture, this might make people uncomfortable,or make themthink the interviewer/researcher does not trust them to keep their word.

The researcher expressed appreciation forthe interviewees' help warmly and often. This helped minimize the uncertainties created by the "unfamiliar" paperwork. Trust-based commitment is popular in Vietnam and is still prevalent in the business of conducting research in the country. People are invited to be informants in certain research studies mostly via personal relationships, and this is seen as "helping" the people who are in charge of the research. They are less motivated by the nature or the benefit of the research for themselves. This explains why surveys or research invitations delivered via e-mail from unacquainted persons are often ignored (Napieret al., 2004). People participate in research to "help" their acquaintances, thus requiring written evidence of agreements to help makes one appear unappreciative and distrusting.

3.7. Conclusion

This chapter has presented the research design and covered the topics of fieldwork access, data analysis, data collection, reporting style, and ethical issues. Section 3.2 shows that the fieldwork was accessed via“informal” channels, although “formal” could have been selected due to the researcher havingworkedfor the government of Vietnam. Informal channels were used based on advice that the researcher should rely on “social capital” (Boggiano et al., 2015).

As indicated, the “social capital” used in the field includes macro, mesco, and micro levels. The macro level could not be accessed at a high level of government engagement, although there was full understanding of the country’s government structure. Therefore, a group of NGOs wasused for the case studies instead of using the “formal channels”. This group of NGOs played the role of social capital at the macro and mesco levels. At the micro level, the researcher located trustworthy and reliable key informants that hadstrong connections within the target populations of the two village case studies. These people acted as “gatekeepers” (Høyland et al., 2015), or “field assistants” (Bonnin, 2010).

Four groups of “gate keepers” were used (in accordance with the five levels of government authority in the country). At the central government level, “gatekeepers” were from the NGOs as these people had strong connections with the researcher personally and professionally. At the provincial level, the boss of the forestry sector of the province was approached for help bythe NGOs. At the district level, the researcher was lucky to casually bump intoa friend and classmate from his university years. With the support of this “gatekeeper”, access to field work at the commune and village levels went well.

As this was an explanatory research project, Stebbins’ (2001) advice about flexiblity and open mindness in defining data and finding sources of data to collect was followed. Section 3.3 shows that the research data camefrom various sources, such as observations, interviews, archival sources and life records, letters, diaries, and biographies. While secondary data sources wereavailable to the researcher, this section focuses on justifying the methods of collection used and the outcomes of the primary data.

Section 3.4 justifies the use of qualitative strategies for data analysis. In this regard, it mostly concurs with Glaser and Strauss’“constant comparative method”, but information on how to

conduct such a process camefrom secondary writings. As Creswell (2013) suggests, the research usesan inductive process in which the researcher develops participants' evidence into themes, combines participants' interpretations with his own interpretations, and finally develops theories based on these. This section offers a rich description of how the researcher usesthis "inductive process" to analyse the research data.

Section 3.5 presents the reasoning behindthe style of this research report, and the data analysis outcome. As indicated in this section, the presenting style is a combination of auto ethnography and a conventional approach. The former ensures a creative, imaginative, and fiction-like style of writing that clearly sets out the evidence. The latter satisfies the requirements of writing a PhD dissertation, which is structured according to a template. This approach allows the researcher to use quantitative descriptions to deliver precise impressions of the research data.

Finally, Section 3.6 addresses issues of trustworthiness and ethics, which ensure the validity of this qualitative research. As discussed in this section, the trustworthiness of this research was ensured by employing the indicators of "validity" and "reliability" in experimental designs. As a qualitative research, there was considerable leeway given tothe researcher over the process of the research. This factored into selecting a research stance; selecting case studies; collecting and analysing data; and writing the report. For example, in data collection, the researcher insisted that the data present the perspectives of the participants. The integrity and honesty of the researcher was focused on in order to reinforce thetrustworthiness of the data. The researcher also made sure process wastransparent forthe reviewers and for those who mightuse the findings.

As an ethnographic research project dealing with local people, attempts to minimise the tendency to transform the researched into "objects of scrutiny and manipulation" were made, because indigenous peoples have traditionally been objectified and subordinated (Booth and Jacobs, 1990; Carlson, 1999: 94; Deloria, 1973). To achieve this, the researcher: self-identifiedas a "learner"; allowed participants to define their own experiences in their own words; and disclosed personal information to participants. Furthermore, the researcher acknowledges that being a cultural insider facilitated acceptance by the interviewees, which in turn enabled him to catch subtle cues inthe interviewee's responses.

Chapter 4
Narrative on sacred forests

4.1. Introduction

As a “field of attraction” and a “global phenomenon”, sacred natural sites and forests have been widely researched over decades covering a wide range of topics, including their geographic distribution and number, and their significance environmentally, economically, and social-culturally. Ampili (2015) concludes that studies of sacred forests have generated considerable data and knowledge regarding number and distribution of these places, associated belief systems, roles they play in the lives of local communities, and their conservation status.

This chapter argues that previous studies have not focused on the definition and classification of these places. Furthermore, existing studies recognize their economic, environmental, and socio-culturalvalue from a positivist perspective, overlooking an interpretivist perspective. Positivist studies have been criticized for lacking recognition of the intangible contributions of natural resources and forests, such as the provision of environmental services and cultural conservation. These topics are discussed below, with a focus on work in the area of sacred forests (a special type of sacred natural site and forest).

4.2. Definition of sacred forests

Widely used and termed

Internationally, sacred forests are publicly and academically referred to using many terms, including *“sacred forest”*, “*sacred grove*”, “*spiritual forest*”, and“*traditional forest reserve*”. These terms are used interchangeably in certain contexts. For example, sacred forest and sacred grove are able to be used interchangeably, simply because the two terms correspond to the direct translation of the French forêt sacrée (Dudley et al., 2010; Soury, 2007). Similarly, Schelhas and Greenberg (996) use the terms “*sacred grove*” and “*traditional forest reserve*” interchangeably.

Across the globe, sacred forests have many names. In Kenya, they are called "*kaya*" forest, while in Zanzibar, Tanzania, sacred forestsareknown as *misitu ya jadior misitu ya mizimi* in the *Swahili* language (Vipat & Bharucha, 2014). Incertain countries, sacred forests have various names. Table 4a presents India as an example, where in different parts of the country sacred forests have different names. In Vietnam, the *Thai* ethnic minority uses"*Hồn Chiềng*", and these have different names based on their location: '*Cửa Xen*' if located '*đầu mường*' (infront of the village) and '*Cửa Pọng*' if located behind the village (Tran, 2009).

Table 4a: List of local names of sacred forests by region in India

Local name	***Region***
"*Sarna*" or "*Dev*"	Madhya Pradesh
"*Sarna*" or "*Dev*"	Maharashtra
"*Sarnas*"	Bihar
"*Orans*"	Rajasthan
"*Devarabana*" or "*Devarakadu*" or "*Rulidevarakadu*" or "*Nagabana*" etc.	Karnataka
"*Kovilakadu*"	Tamil Nadu
"*Kavu*"	Kerala
"*Dev van*"	Himachal Pradesh
"*KI Law Lyngdoh*" or "*Ki Law Kyntang*" etc.	Meghalaya
"*Sarana"* or "*Jaherthan*"	Jharkhand
"*Lai Umang*"	Manipur

Source: Adapting from Bhakat (1990) (in Andhra Pradesh, nd).

Several parts of forest are also spiritualized. Ongugo et al. (2016) indicate in their case study that there are spiritual names for different trees in sacred forests, including "*Omuonyo lee*" in *Luo* dialect, which refers to a large *Mvule* tree (*Milicia excelsa*); and *Loch* (*Luo* dialect for "*harness*", again referring to the *Mhugu* tree - *Brachylaenia huillensis*). Similarly, the *Hà Nhì* people in Vietnam believe there is a soul in each plant species and forest, just as in humans. Regarding plant species, they believe that each tree has a God inside; in the Fern (*Nephrolepis cordifolia)* this is"*Tá*"; in Wild Grass Flowersit is "*Phứ*"; and in *Acanthaceae* it is '*Trzung*' (Ngoc et al. 2016).

Broadly defined

Sacred forests are seen as special due to their biodiversity and their cultural significance to local communities and indigenous people. They are parts of sacred natural sites generally, and customary or community forests more specifically (Oviedo & Jeanrenaud, 2007, in Verschuuren, 2010). This chapter quotes formal definitions used in or proposed by the 21 studies reviewed (Appendix 10). As shown in the appendix, the most holistic definition of these places is:

> They are wooded areas, worshiped land/or feared, and dedicated to the cultural expression of a fixed community (Lebbie & Freudenberger, 1996; Chandran & Hughes, 1997; Malhotraet al., 2007; Sheridan & Nyamweru, 2007; Ormsby & Bhagwat, 2010; Ormsby & Edelman, 2010).

A detailed analysis of the appendix presented below shows that the collected definitions reflect the multi-dimensional meanings of the term "sacred forest". In other words, the outcome of this analysis shows that there is a diversity of indicators reflecting the concept of sacred forests. An initial analysis shows that each definition of sacred forests used in, or proposed by, existing studies, is both too general and indefinite, and reflects the multiple-dimensions of this type of natural resource. Further, none of the relevant studies explore what the terms "sacred forest" and "sacred natural site" mean on the ground.

There are a number of definitions that touch on the biodiversity of sacred forests (Ganguli et al., 2016; Shinde et al., 2011; Dudley et al., 2010; McIvor et al., 2008; Soury, 2007; Schelhas

& Greenberg, 1996; Henrie, 1972; Andhra Pradesh, 2015**)**. Below are typical examples of this:

> They are "…forest patches conserved by the local people through socio-cultural and religious practices. This religious and socio-cultural practice has enabled sacred groves to harbour a rich biodiversity of flora and fauna and has played a significant role in the conservation of biodiversity" (Khumbongmayun et al., 2006 and Khan et al., 2008, cited in Shinde et al., 2011).

> "Sacred forests are areas where the community has established a covenant with deities or other sacred entities to refrain from certain uses of the environment (Little, 1965, cited in Schelhas & Greenberg, 1996).

> They are "segments of landscape containing vegetation, life forms and geographical features, delimited and protected by human societies under the belief that to keep them in a relatively undisturbed state is an expression of an important relationship of humans with the divine or with nature" (Hughes & Chandran, 1998, cited in Andhra Pradesh, 2015).

Cultureis seemingly always reflected in the conceptualizing of the terms "sacred forest" and "sacred natural site" (Nkwi, 2017, Muli, 2016; Ongugo et al., 2016; Kleinod, 2014; Ormsby, 2013; Shinde et al., 2011; Anh, 2010; Verschuuren, 2010; Dudley et al., 2010; Deb, 2007; Soury, 2007; Schelhas & Greenberg, 1996; Chidester & Linenthal, 1995; Henrie, 1972; Andhra Pradesh, 2015).Below are some typical examples of this:

> A sacred forest "is often associated with cultural and religious beliefs of the indigenous peoples" (Nkwi, 2017).

> Sacred forests are "areas of land or water with special spiritual importance to communities and people. Sacred is that which is connected to religion and so deserving veneration" (Bas et al., 2010, citing in Muli, 2016).

A number of studies touch onownership in defining the terms "sacred forest" and "sacred natural site" (Ormsby, 2013; Anh, 2010; Oviedo & Jeanrenaud, 2007, cited in Verschuuren, 2010; McIvor et al., 2008; Schelhas & Greenberg, 1996; Chidester & Linenthal, 1995;

Andhra Pradesh, 2015). For example, it is indicated that sacred forest are areas where the communitieshave established a covenant with deities or other sacred entities and they refrain from certain uses of the environment (Little, 1965, cited in Schelhas & Greenberg, 1996). This study indicates that sacred forests are usually controlled by a traditional authority, which couldbe a priest in charge of the god of the forest, the chief of a village, or members of specific groups or "secret societies".

None of these definitions factor in aneconomic dimension, which is inconsistent with claimsthat sacredness can reflecta local communities strong material dependence on these sites (Gokhale & Pala, 2011). Some definitions indicate a minimum size (Dudley et al. (2010) indicate that the minimum area for asacred forests is 0.2 ha and there is no maximum).

The diversity of these definitions of "sacred forest" and "sacred natural site" suggests that no single one reflects all the dimensions of these natural resources.

Lacking in study

How the processes of generating definitions havedeveloped is unclear, because so far few papers haveinvestigated theconceptual meanings of the term "sacred forest", although this term is widely used. In relation to understanding the concept "sacred forest", there are two papers of interest. Henrie (1972) focuses on understanding the perception of sacred space by a modern religious group. Mondal et al. (2015) state that theirobjective is to understand the general awareness and perception of sacred forests, while exploring their role in bio-diversity conservation between urban people of *Bankura District*, *West Bengal*, India. However, this study fails to address the latter, and instead focuses on the former.

As socio cultural spiritual values are important to customary natural resources (Nkwi, 2017; IUCN World conservation strategy, 1980; Didora, 2010; Verschuuren, 2010), there are some papers touching on understanding spirituality in this context. In relation to the Cheam First Nation in Canada, Lewis (2000) explores cultural perceptions of the land and identifies the ways in which cultural uses of place are affected by resource management. Further to this, Lewis and Sheppard (2005) explore the spiritual perceptions of local people of forested landscapes. Clark (2011) argues that the spiritual value of forests is too complex and interwoven with cultural assumptions to be adequately distilled into a single definition. In this

regard, Clark (2011) proposes broad categories for discussion: intrinsic sacredness; associated sacredness; reflection of God's glory; and a place to commune with God and experience transcendence, and spiritual renewal.

Mondal et al. (2015) identify percentages of respondents familiar with the term "sacred forest". Findings consider age group and educational level. Lewis and Sheppard (2005) find that local people's concepts of spirituality are deeply rooted in ancient narratives and myths that describe the land as a gift from the Creator for the material and spiritual benefit of the people, and their human and non-human neighbours. Similarly to Mondal et al. (2015), Henrie (1972) indicates that although personal differences exist, there is general agreement as to what types and individual places are sacred. There are trends in degree and kind that exist among subgroups (independent of variable groups). Also, Henrie proposes five general types of sacred places for discussion: (1) places of mystical manifestations; (2) homelands; (3) places important to historical legacies; (4) functional religious places; and (5) places connected with the past or future fulfilment of prophecy.

Henrie (1972) and Mondal et al. (2015) use survey-based approaches to understand "perceptions of sacred forests". Mondal et al. (2015) interviewed 61 informants by phone, and 800 informants by email. This approach is contradictory to "efforts to deepen understanding of the perception of sacred space" (pp. 9).

4.3. Diversification of sacred forests

Sacred forests are diverse and have diverse ownership regimes. They have legally been assigned to many non-indigenous communities, including being privately owned by individuals or families and common property of communities and governments (Vipat & Bharucha, 2014; Kushalappa & Raghavendra, 2012; Rutte, 2011; Soury, 2007; Malhotra et al., 2001). For example, Kushalappa and Raghavendra (2012) indicate there are ten types of sacred forests, including private, joint government and community, and common property. Similarly, sacred forests may resemble club goods, private goods, public goods, and common-pool resources, depending on which type of resource is involved (Rutte, 2011; Malhotra et al., 2001; Vipat & Bharucha, 2014).

These classifications indicate that sacred forestassignment favours non-indigenous people, although it is indigenous communities that are in need of the resources. The dependency of indigenous people on sacred forests and natural resources is discussed in detail in Chapter 5. Many of these classificationsareinappropriate as indigenous communities claim to be the original owners of these resources.

Sacred forests were originally created by local indigenous communities (Claudia, 2008; Uyeda *et al*., 2014), who conserved these forest patches for cultural purposes. In addition to their cultural significance, these forests wereimportant for the conservation of species useful to local people (Wadley & Colfer, 2004) and for bio-diversity conservation (Mgumia & Oba, 2003; Anderson *et al*., 2005; Bhagwat & Rutte, 2006, cited in Daye & Healey, 2015). Classifications favouring non-indigenous people are criticised and it is argued that to take their management control away could cause the alienation of local people from natural resources generally, and forests in particular (Chandrakanth *et al*., 2004, cited in Ormsby, 2013).

Geographically, sacred forests are classified by their locations globally, regionally, nationally, and locally. Internationally, they are a "universal phenomenon", and can be found on everycontinent (Andhra Pradesh, nd; Verschuuren, 2010). As a "global phenomenon", they are diverse and likely in many casesstill unknown (Verschuuren, 2010). Verschuuren (2010) comprehensively concludes that because of their diversity, origins, and different and varying degrees of sacredness, it is not really possible to know the number of sacred sites that exist today.

Regionally, it is argued that research on sacred forests tends to be concentrated in a few places, particularly South Asia (India and Nepal), China, Ghana, and Benin (Verschuuren, 2010). Nationally and locally, no country except India has well-documented sacred forests (Andhra Pradesh, nd). India has the most comprehensivelydocumented sacred forests(e.g., Ramakrishnan 1996; Chandrashekara & Sankar, 1998; Ramanujam & Kadamban, 2001, cited in Andhra Pradesh, 2015). It is estimated that there are between 100,000 and 150,000 sacred forests belonging to about 600,000 villages in the Indian countryside (Bhagwat et al., 2005; Malhotra et al., 2001; Behera & Pradhan, 2015; Gupta & Sharma, 2013; Shepheard-Walwyn,

2014; Soury, 2007; Verschuuren, 2010). India'shuge efforts to document their sacred forests are presented in the following chapter (Chapter 5, Section 5.2, appendix 11).

In terms of utilization, sacred forests seem to be classified into two groups: multi-dimensional and specific uses. Eventhough there are many studies indicating that these places are specific, in reality they are multi-dimensional. This is evident in most empirical studies, as is presented in the following section (section 4.4).

In relation to the specification of sacred forests, they are classified by function. This is evident in many studies, where there is further evidence of the diversity of this classification (Babalola et al., 2014; Martín et al., 2011; Gokhale & Pala, 2011; Soury, 2007; Bhagwat & Rutte, 2006; Schelhas & Greenberg, 1996). For example, Babalola et al (2014) indicatethat in six of the sacred forests, grazing cattle is permitted, and in nine dead fallen branches of the trees can be used as fuel. Also, Babalola et al (2014) shows that the utilization of sacred forests is also seasonal with a seasonal collection of flowers from the grove regulated for rituals at festivals.

Similarly, a distinction is made between three different types of sacred forests by Martín et al (2011): ancestral forests, which focus on the protection of the spirits of ancestors; forest cemeteries, which serve as cemeteries for people who died from natural hazards (lightning, fire, drowning), children from sickness or women during pregnancy; and forests of secret societies, where only secret societies are allowed to enter the forest and where different traditions concerning the initiation of girls and boys are taught. Noticeably, some sacred forests have classificationsbased on the associated village organizations and their functions. Schelhas andGreenberg (1996) indicate that of the sacred forests in their study, 52% are *sande lorgboi* (women's sacred forests), more than 38% are *poi lorgboi* (men's poro forests), approximately 4% are *wunde lorgboi* (men's wunde forests), and over 2% are *hemi* (sacred prayer forests), *kabandae lorgboi* (legendary or mythical forests), and *humui lorgboi*, *kpikili lorgboi*, *gbangbani*, and *hunting*(all traditional village organizations) account for just under 4%.

Henrie (1972) proposes five types of sacred places: (1) places of mystical manifestations; (2) homelands; (3) places important to historical legacies; (4) functional religious places; and (5) places connected with the past or future fulfilment of prophecy.

In terms of size, there is no classification grouping for sacred forests. However, theyare mostly small, as indicated in many studies (Daye & Healey, 2015; Dudley, Bhagwat, Higgins-Zogib, Lassen, Verschuuren & Wild, 2010; Soury, 2007; Andhra Pradesh, 2015).Soury (2007) in referring Juhé-Beaulaton (2005)indicates that in Benin the majority of sacred forests are small, with an area ofbetween 0.5 ha and 20 ha. Other evidence suggeststhat the size of individual sacred forests varies from a clump of a few trees to several hectares (eg. Andhra Pradesh, nd).

Sacred natural sites and forests are diverse because they are related to religion with social-cultural-spiritual implications, including rituals or ceremonies, and taboos (eg. Bas et al., 2010, cited in Muli, 2016; Anh, 2010; Deb, 2007; Verschuuren, 2010). It is a given that there is a diversity of religions with thousands of groups of belief (Rudolph, 2018). Also, there are many philosophies behind the creation of customary areas, such as those of Buddhism, Hinduism, Islam, Daoism, Shintoism, and animistic beliefs, etc. in Asia.

As diversifation of sacred forest is related to rituals or ceremonies, Deb (2007) indicates that different cultures perceive sacred natural spaces in different ways, and institutionalize various rules of behaviour mainly through taboos. For example, in relation to rituals, sociologist Mervin Verbit indicates that ritual canbe broken down into four dimensions: content; frequency; intensity; and centrality. The content of a ritual may vary from ritual to ritual, as does the frequency of its practice (Verbit, 1970, in Stausberg & Engler, 2013: 73). In effect, these dimensions are about the diversity of sacred forests.

However, there is some evidence in the research literature ofthe diversification of sacred forests in terms of culture. In a study of cultural practice related to natural resource uses, Iskandar andIskandar (2017) foundthat there are nine kinds of traditional rituals that are performed by the *Baduy* local community (a traditional *Bantenese*community living in the south-eastern part of the Indonesian province of *Banten*). Similarly, Behera and Pradhan (2015) indicate that various traditional customs associated with sacred forestsarepracticed by

the *Kondh* tribe, who reside in the *Niyamgiri* hills in the state of *Odisha* in India. This evidence of diversity resembles summaries in other studies, where there is variation among different ethnic groups in relation to ceremony or custom that is peculiar to a sacred place (Dafni, 2007).

3.4. Multi-dimensionality of sacred forests

Value and sacred forests

The term "value(s)" varies across the disciplines of psychology, economics, anthropology, sociology, and psychiatry (Lee & Kant, 2006; Kant & Lee, 2004, cited in Yang et al., 2015). Generally, definitions of this term reflect attitudes aboutan object or a group of objects. For example, as defined by Rokeach (1973) and cited in Winter (2007), a value is 'an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence'. In another example, values are related to politics in Karwat's (1982) definition, which isconsidered abstract, and culturally objectify ideas about phenomena. Furthermore, value according to Ichim-Radu (2017) represents the embodiment of some purposes, projects, wishes, intentions, objectifying human essence in products of the creative activity for each kind of human attitude.

In a narrower sense, according toPickering and Rossi (2016) enviromental values are nested in two broader constructs: 'ecocentric' and 'anthropocentric' orientations, referring to those deeply held and enduring guiding principles that influence people's perceptions. In relation to forests more specifically, values are defined as concepts of the "good" as related to forests and forest ecosystems (Xu & Bengston 1997; Bengston 1994, cited in Yang et al., 2015).

Acknowledging the value of an object (or a group of objects) is significant. For example, Winter (2007) refers to various studies to point out that values are important because they influence attitudes and behaviour. This study stresses that an orientation is a collection of values, and it provides a broader indication of people's environmental concerns. Another example is Wohlleben (2016), who argues in "*The Hidden Life of Trees*" that:

> "how our appreciation for trees affects the way we interact with the world around us (p. xi)… when people know that trees experience pain and have memories and that tree parents live together with their children, then they can no longer just chop them down and disrupt their lives with large machines (xiv)".

Similarly, according to Tilley and Cameron–Daum (2017) "emotion" is the primary reason some people care about nature. This study refers to Milton's (2002) study on the relationship between emotion and rationality in environmental policies and practices, which compares and contrasts two models (western and non-western) of environmental management:

> "Emotion, she argues, is the primary reason some people care about nature. ...These deep feelings for nature emerge from their perceptual experience of their environment...A fundamental difference between the manner in which modern western societies and indigenous traditional societies treat nature often involves the notion of the sacred. The former can destroy nature because they are separated from it whereas for the latter nature inheres in social being. Nature for us in the contemporary west is a resource to be used and exploited and bound up with land ownership (pp 18)".

Sacred forests are multi-dimensional, having a wide range of uses spiritually, socially, environmentally, and economically. Consistently, there is some plurality in trying to classify forest values, and over time this has developed into seven main schools of identifying forest values, in dichotomies of: tangible and intangible values (Harmon & Putney, 2003; Kent, 2010); timber and ecosystem service (Farrell et al., 2000); direct-use and indirect-use (Kengen, 1997); instrumental and human (Taylor, 1996); instrumental and intrinsic;use or non-use; (Winter & Lockwood, 2005);market and non-market; extractive and non-extractive; material and non-material (Tarrant & Cordell, 2002).

There are other schools of thought that use multiple categorizations of forest values. 'Sustainable forest management' divides forest ecosystems into four categories: Promoting Services; Regulating Services; Cultural Services; and Supporting Services (Assessment 2005). The United Nations' (1992) "sustainable development" term separates

"environmental", "economic", "social", "cultural", and "spiritual" forest values to make adapting forest management to local practice clearer and more practical. Rutte's (2011) criteria for sacred forest management adopts the United Nations' (1992) categorization by separating ecological, social, cultural, and spiritual elements.

Ontology of sacred forests

According to Brabazon (2017), ontology is what people believe about objects and their relationships. In this research, ontology is generally about the knowledge of sacred forests. This research argues that knowledge about sacred forests is subjectively, socially, and contextually constructed, and is determined by the ontological position of interpretivism (or relativism) as indicated in Tuli (2011). The ontological position of interpretivism is relativism – believing that reality is subjective and differs from person to person (Guba & Lincoln, 1994, in Tuli, 2011). This argument rejects positivism and argues for the superiority of constructivism, idealism, relativism, humanism, hermeneutics, and, sometimes, postmodernism (Guba & Lincoln, 1989; Lincoln & Guba, 2000; Schwandt, 2000; Smith, 1983, 1984, in Johnson et al., 2004).

Knowledge is subjective because its nature, as Tuli (2011) indicates, and ways of discovering it, are subjective. In relation to sacred forests, it is subjective because definitions of these places, and what value they offer socially and culturally, is always in relation to human beings. The discussion inSection 4.2 shows that the human element is often referred to in definitions of sacred forests. The relationships to humans indicated in Arora (2006) shows that the idea of a sacred forest separated from people is an illusion, 'since it denies the unalienable relation of nature to man' (Rangarajan 1996: 70). The following discussion also shows numerous studies that indicate that sacred forests are closely linked to local communities through the valueof theirnatural resources.

Knowledge about sacred forests is socially and culturally constructed for many reasons. Section 4.2 shows that social and cultural elements are always referred to in definitions of sacred forests used in or proposed by existing studies. In terms of significance, they are seen as "the first temples of worship" in the world (Varner 2005, in Deb, 2007). Furthermore, Kant

and Lee (2004) argue that economists indicate that multiple forest values are closer to the concept of 'social states' than market price or monetary value.

Knowledge about sacred forests is contextual in many aspects, and in terms of definition, there is always a need to connect to a certain context in defining the terms related to these resources (Muli, 2016; Ormsby, 2013; Anh, 2010; Deb, 2007; Poffenberger, 1996). In terms of the value perceived by local people, there are many influencing factors, such as demographics of the people (their age, gender, education level), and their distance from the forests. Furthermore, the beliefs of local people about the sacredness of their forests changes over time.

Empirical evidence

Knowledge of sacred forests should be determined by the ontological position of interpretivism (or relativism) indicated in Tuli (2011).However, the following discussion shows that the value of sacred forests has mostlybeen studied from a positivist perspective that has solely recognised economic contributions and biodiversity conservation. Furthermore, a significant number of studies claim to use an interpretivism lens, butwhen it comes to methodology fall into a positivist perspective by favoring "survey-based" approaches. The advantage ofinterpretivism is that the value of sacred forests isrecognized beyond simply economics and bio-diversity; intangible contributions are factored in, such as environmental services (e.g.climatechange, water provision) and cultural value(e.g. spiritual belief, social connectivity).

a)Forests in relation to human beings

There are a few studies that use an interpretivist perspective to evaluate the significance of sacred forests.This means researchers regarded themselves and the research participants as important variables in collecting and analyzing data. The research outcome not only focuses on the "what", but also considers the "why" in relation to research issues. Evidence of this research philosophy is revealed inmethodological statements and in the specific techniques used to collect and analyze research data (eg. Jones, 2013; Ormsby, 2013; Lewis & Sheppard, 2005; Aumeeruddy & Bakels, 1994). For example, it is directly indicated in Ormsby's (2013) study that a qualitative, ethnographic research approach was used through the interviews,

participant observation, and focus groups.The sample size used in these studies also makes this clear.Killam (2013) indicates that size isthe most recognizable distinction between qualitative and quantitative research.

These studies often use small samples sizes of around 20 participants (e.g. Lewis & Sheppard, 2005; Aumeeruddy & Bakels, 1994). There are some studies that exercise quantitative strategies with large sample sizes, howeverthey indicate a selection of qualitative approaches (Ormsby, 2013; Jones, 2013). For example, in Jones (2013) "a qualitative, mixed methods ethnographic research approach was used", although this study uses 156 interviews in its data collection.

There are numerous studies that favour an interpretivist philosophy forrecognizing that sacred forests are multi-dimensional in terms of contribution. These studies often point out numbers of respondents to show awareness of local people regarding each dimension of significance, as well as the existence of sacred forests (eg. Randrianarivony et al., 2016;Allendorf et al., 2014; Mondal et al., 2015; Oyelowo et al., 2014; Reuben & Kquofi, 2015; Speranza et al., 2010). For example, Speranza et al. (2010) point out that "a sizeable majority (77%) of research participants held knowledge of the ecological sites used in their study.

There are a few existing studies that quantify the multiple values of sacred forests (Randrianarivony et al., 2016; Winter, 2007). For example, Winter (2007) assesses environmental concerns by measuring and comparing the intrinsic, non-use, use, spiritual, and recreational values of nature-based tourists, members of a recreational conservation group, and the general public. However, there is a significant number of studies that quantify multiple values of non-sacred forests, such as protected areas, plantations, and forests owned by private stakeholders. In this respect, three groups of studies have been identified as significant: 1) Kumar & Kant (2007) Kant & Lee (2004); 2) Winter & Lockwood (2003); Winter & Lockwood (2004); Winter (2005); Winter (2006); and 3) Yang et al (2015); Kendal et al (2015); Ives & Kendal (2013); Ford et al. (2009); Seymour et al (2008);Longmire (2007); Inglis et al (2007); Krieger (2001).

In the first group, Kant and Lee (2004) identifies all possible forest values, and identify people's preferences for different forest values. These values are extended in Kumar and Kant

(2007) where their study identifies five dominant forest value themes and or spiritual value, environmental values, recreational values, economic services values, and economic products value. However, these studies tend to move away from environmental contributions and especially economic values. For example, in terms of the economicst, they ignore the contribution of forests to agricultural production. Especially, ignored are contributions in terms of the environment such as watershed protection, fisheries and aquatic resources, micro-hydropower facilities, potential hydropower supply, flood control, carbon storage/forest cover change.

Similar to the first group, a set of forest values are identified and evaluated through a series of studies led by Winter, starting in 2002. In Winter and Lockwood (2002), they identify and distinguish individual's intrinsic, use and non-use values. The results are further developed in Winter and Lockwood (2003), culminating in a measurement of 20natural area values in Winter and Lockwood (2004). These works were then used as a basis for furtherdeveloping their studybyWinter (2005). Finally, the third group uses the same approach, but focuses on studies in countries such as China, Australia, New Zealand, and the U.S.

Theircommon ground is related to forest value classifications, justifications, and methods used for data collection, and variety in informant groups. For example, Winter (2007) uses a variety of informant involvement, which includes nature-based tourists, members of recreational conservation groups, and the general public.

In terms of methodology, these studies favour quantitative research strategies, using a "survey-base" for collecting and analyzing their research data.They do notregard themselves as important variables, although they do recognizethe importance of research participants in collecting and analyzing data. As a result, the research outcome focuses on the "what" and ignores the "why" in relation to the research issue(s). An obvious indication of this is the survey or questionnaire techniques deployed in relation to data collection and data analysis. Killam (2013) and Tuli (2011) both indicate that quantitative research often uses survey-based techniques such as "questionnaires", "tests", "inventories", "check lists", and "statistical analyses". Similarly, these studies also often use large sample sizes, which Killam (2013) uses to differentiate them from a qualitative research methodology. Studies evidencing these "large sample sizes" and "control variables" are summarized by the Table 4b below.

Table 4b: List of studies where evidence large sample sizes are used in collecting data

Reference of study	*Indication of sample size for interview*
Ringham, Simmonds and Johnston (2016)	70 participants
Sillitoe (2014)	58 received/164 delivered emails for survey: We distributed 114 questionnaires to researchers
Allendorf, Brandt and Yang (2014)	201 standardized open-ended interviews
Shepheard-Walwyn (2014)	1,436 individuals participated
Vipat and Bharucha (2014)	201 standardized open-ended interviews
Vipat and Bharucha (2014)	100 interviews
Umazi, Iwa and Etim (2013)	75 respondents were selected using snowball sampling and stratified sampling techniques
Jones (2013)	156 interviews were conducted
Adesiji and Babalola (2012)	71 respondents were interviewed using a structured questionnaire
Sukumaran, Jeeva and Prasad (2010)	… field visits 201 miniature sacred groves
Swart (2010)	152 participants were interviewed
Wadley and Colfer (2004)	320 Wadley and Colfer data were collected
Campbell (2005)	570 interviewees

Henrie (1972)	Surveyed 61 by phone and 800 by email

b) Forests in isolation from human beings

Forests, when valued in terms of their economic contribution and their biodiversity are often treated as existing independently from people and nations, which is an ontological perspective of objectivism or positivism. Theoretically, a positivist orientation regards reality as being 'out there' in the world (Bassey, 1995, citing in Tuli, 2011). Practically, this is about "materiality", where "we see and understand landscapes through the representations of others and, in turn, these representations become the object of further discourses" (Tilley & Cameron–Daum, 2017: 4). Interpreting this position withinresearch, researcher(s) do not either regard themselves or research participants as important variables in collecting and analyzing data.

Seeing forests primarily as a source of timber and other wood products was commonearly in the twentieth century (Clark, 2011). This economic-only view is traditionally defined bythose goods and services provided by forests that are traded in regional, national, or international markets (Beckley et al., 1999). These values are called direct-use forest values using Kengen and Sebastiao's (1997) classification, andtheyinclude benefits derived from the consumptive use of forest products e.g. timber extraction, as well as the value of non-consumptive activities such as recreation.

Sacred forests' economic significance is often overlooked, with only one study so far having used market methods, (carried out in India by Randrianarivony et al. (2016)). This study uses market prices proposed by Aylward et al. (2003) and shows that 1.200 ha of rice fields in a given region can beirrigated with river water from the local sacred forest. It further interprets water in the region surrounded by sacred forests in monetary terms of $0.2/m3 to 6.25 $/m3 for people.

In relation to forests more generally, there is a large volume of literature that describes market analysis, both its pitfalls and its usefulness, e.g. Looms (1993), in Beckley et al. (1999). Beckley et al. (1999) shows many examples of industrial forests in Canada to indicate the

economic value of forests and to provide tools to measure this value. This approach is significant when it enables scientific communities to come up with quantitative outcomes. For example, economic methods estimate that globally, forest products contribute between 20% and 40% of total household income in forest areas, and that poor households tend to be disproportionately dependent on forest resources (especially fuel wood and fodder) (Vedeld et al., 2007).

The biodiversity values of forests under the classification of "sustainable forest management" (Assessment 2005) include trees, animals, and non-living things forming the forests.In this categorization, the biodiversity values of forests are cited asenvironmental/regulating functions. The ontological point of view on the biodiversity significance of forests is often about measuring biomass volume, species richness, and forest land cover changes(Table 4c). These studies often deploy modern technology such as Geographical Information Systems (GIS) whenanalyzing land-cover classes, and LANDSAT[2] image analysis (Table 4d).

Table 4d: List of "survey-based" sacred forest studies

Reference of study	***Indication of methodology***
Behera and Pradhan (2015)	questionnaire survey
Mondal Rajendra Prasad, Pati Subhadip, Sarkar Soumik, Gayen Arpan, Guin Priya and Mishra Trisha (2015)	written questionnaire
Oyelowo, Aduradola, Onadeko and Agboola (2014)	150 copies of questionnaire were administered randomly
Babalola, Lawal, Opii and Oso (2014)	questionnaire administration

[2] any of a system of U.S. satellites for gathering and transmitting data about the earth's natural resources, topography, etc.

Chaitieng and Srisatit (2013)	survey of location
Patel and Patel (2013)	field surveys were conducted
Gokhale andPala (2011)	field survey was done
Spoon (2008)	survey techniques at multiple scales
Lewis and Sheppard (2005)	more quantitative perception-testing analytical methods
Byers, Bruce, Robert Cunliffe and Andrew Hudak (2001)	surveyed local residents

Table 4d: List of studies that used modern technology in investigating the biodiversity value of sacred forests

Reference of study	***Indication of methodology***
Behera andPradhan (2015)	Scientific sampling method is adopted to study the biodiversity and growth of trees followed by …
Daye and Healey (2015)	…assessments using maximum-likelihood classification of LANDSAT…
Ayhan, Ametin and Bgurcan (2004)	using Geographical Information Systems (GIS) to analyse land-cover classes and individual forest patches
Yusmah and Rodziah (2009)	usingGeographical Information Systems (GIS) to analyse land-cover classes and individual forest patches
Behera and Pradhan (2015)	… to understand the richness of plant biodiversity
Ganguli, Gupta and Bhattacharya	vegetation structure of different strata (tree, shrub

(2016)	and herb,) were analysed
Shepheard-Walwyn (2014)	… land cover change survey…
Daye and Healey (2015)	…evaluate land coverchanges and patch fragmentation…
Patel and Patel (2013)	…plant biodiversity…
Sukumaran, Jeeva and Prasad (2010)	the floristic richness of the sacred groves in South Travancore (presently known as Kanyakumari district) was analyzed
Salick, Amend, Anderson, Hoffmeister, Gunn and Zhendong (2007)	… examines the role of sanctity inbiodiversity conservation within habitats…
Campbell (2005)	… analysis of time series images (1960-98)…
Mondal Rajendra Prasad, Pati Subhadip, Sarkar Soumik, Gayen Arpan, Guin Priya and Mishra Trisha (2015)	
Mehta and Jain (2011)	… information about the groves was collected…
Baker, Tanimola and Olubode (2018	
Grace and Jeuland (2018)	
Rath and John (2018)	
Boadi, Nsor, Yakubu, Acquah and Antobre (2017)	… investigated tree and insect diversity in…
Woods, Cardelús, Scull, Wassie, Baez and Klepeis (2017)	… examining tree and seedling communities among sacred forests…

Manzoor and Ali (2017)	… assessing the diversity of forest flora…

A major contribution to biodiversity measurement involves identifying and measuring the richness of fauna and flora in forests, which Tuli (2011) calls "natural sciences" or "hard science". According to this scholar, such observations and measurements are objective and can be repeated over many studies. Muli (2016) provides archival data showing 29 relevant empirical studies to date. Similarly, Agnoletti and Emanueli (2016) collected a selection of papers recognizing the inextricable link between biological and cultural diversity.

Another aspect of "hard science" contributions in the area of biodiversity of sacred forests is that of comparative studies, in which sacred forests are considered special when numerous studies indicate that they have greater density and species richness than other forests (Table 4e). For example, Boadi et al. (2017) showthat a traditional conservation approach supports more species turnover than occurs in conventional, state-managed forest reserves. Similarly, Salick et al. (2007) highlightin their previous remote sensing studies that sacred sites are habitats with greater species richness and diversity than randomly selected non-sacred sites.Sacred forests are sometimes more diverse than protected areas (Dudley et al., 2010).

Table 4e: List of studies where evidence sacred forests are more diversity than non-sacred forests

Reference of study	***Indication of diversity***
Tchatchouang, Djomo, Tajeukem, Djibrillia and Happi (2018)	showsrich floristic diversity in the sacred forest and weak diversity in hedgerows
Boadi, Nsor, Yakubu, Acquah and Antobre (2017)	results show that sacred groves (a traditional conservation approach) support more species turn over than the conventional, state-managed forest reserves
Ganguli, Gupta and	sacred forests are better protected and managed owing to their religious significance and harbour richer plant

Bhattacharya (2016)	diversity than other forests
Behera and Pradhan (2015)	sacred groves are rich in flora genetic diversity
Jones (2013)	sacred forests have greater density and species richness than village forests
Patel and Patel (2013)	these groves are considered one of the most species-rich areas for plants, birds, and mammals
Kushalappa and Raghavendra (2012)	sacred forests are richer in terms of biodiversity and cultural diversity
Verschuuren (2010)	sacred natural sites are often rich in species and are sometimes more diverse than even protected areas or forest reserves
Dudley, Bhagwat, Higgins-Zogib, Lassen, Verschuuren and Wild (2010)	detailed surveys in the Jaintia Hills of northeast India found a sacred grove containing 82 tree species in 0.5ha (Upadhaya etal, 2003) and higher than average levels of vascular plant diversity in…
Salick, Amend, Anderson, Hoffmeister, Gunn and Zhendong (2007)	habitats with greater species richness, diversity, and endemism than randomly selected non-sacred sites
Campbell (2005)	far fewer tree losses were documented in the sacred groves than in the local unprotected stands
Ganguli, Gupta and Bhattacharya (2016)	comparison with results from other sacred forests indicated lower species richnessand diversity , as well as basal area in…
Soury (2007)	sacred forests abound in diverse fauna and flora
Dudley, Bhagwat, Higgins-	sacred natural sites are often rich in species and are

Zogib, Lassen, Verschuuren and Wild (2010)	sometimes more diverse than even protected areas or forest reserves

3.5. Conclusion

This chapter condenses three topics. In the first, in a “field of attraction” (Kleinod, 2014; Loh & Harmon, 2005) there is wide use of, as well as a definition of terms related to sacred sites and forests. However, there are few studies conceptualizing these terms on the ground. It is argued that there is a broad awareness, but an overall lack of definition, of the term “spiritual value” in relation toforests (Clark, 2011). This chapter shows that having an understanding of the terms related to sacred natural sites and forests is significant. As Clark (2011) points out, alack of clarity hinders incorporating spiritual values into the practice of sustainable forest management. Similarly, Henrie (1972) stresses that knowledge of the perception of sacred space is essential to a fuller explanation of how man defines, limits, and characterizes in these places. This scholar indicates a need for understanding what is in the mind in order to understand man’s earth and his use of it.

The second is that, as a “global phenomenon” (Andhra Pradesh, 2015; Verschuuren, 2010), sacred natural sites and forests are diverse. This discussion shows that sacred forests are classified in a way that favours non-indigenous people. In terms of utilization, sacred forests are grouped into multidimensional uses and specific uses. In term of size, there is no classification grouping of sacred forests. However, most literature (Daye & Healey, 2015; Dudley et al., 2010; Soury, 2007; Andhra Pradesh, 2015) indicates that they are typically small.

It is argued that there is a lack of classification of sacred natural sites and forests in terms of their religiousand socio-cultural-spiritual implications. The diversity of these sites is driven by the way in which local people practice their beliefs in these forests. As this discussion highlights, sacred natural sites and forests are actually diverse because they are incorporated into rituals, ceremonies, and taboos (Bas et al., 2010, in Muli, 2016; Anh, 2010; Deb, 2007; Verschuuren, 2010).

Investigation into this aspect is significant because a classification that favours non-local communities arguably takes over management control and could cause the alienation of local people from their sacred forests (Chandrakanth et al., 2004, citing in Ormsby, 2013). Further, Lewis and Sheppard (2005) suggest that further research into tangible indicators of culturally appropriate and respectful forest use is needed, as this could be developed into guidelines for forest management thatprotect spiritual values. This is also significant because conservation organisations are starting to investigate how they can be incorporated into broad conservation policies (Dudley et al., 2010).

Finally, knowledge generation about customary forests is highly important both academically and practically and there are many studies that strive towards this goal. In analysing these studies, section 4.4 identifies two main ontological-epistemological-methodological perspectives that have implications for future research. Within each perspective, how the belief of "reality" and knowledge is exercised differentiates scholars from each other.

Under the lens of interpretivism multiple-dimensions of forests and customary natural resourcesare recognized, not only in economic and biodiversity terms, but alsoin terms of their intangible contributions to things such as environmental services (climate change, water provision) and cultural values (spiritual belief, social connectivity). However, when itcomes to methodology, scholars tend to have positivist perspectives, favoring "survey-based" approaches; this is criticized by social scientists. For example, valuations of goods and ecosystem services do not correctly reflect the real significance of biodiversity (eg. Heal, 2000, cited in Randrianarivony et al., 2016). Furthermore, Kumar andKant (2007) and Winter (2007) all warn of the limitations of using social research strategies to identify the multi-dimensions of customary forests. As they point out, these research strategiesare suited to developed countries and should not be used to measure the environmental values perceived by indigenous peoples.

Section 4.4 shows that withina positivist perspective, forests and customary natural resources are also significant in terms of their economic contributions and biodiversity conservation. Economically, forests have a history of being recognized as sources of timber, though this has not been strongly evident in studies of sacred forests. It may be the case that sacred forests are more significant from anon-timber perspective because they are small in size and they are

used as a focus for cultural practices and ecosystems. That said, their economic contribution to the livelihood of local communities needs to be recognised.

A major contribution to biodiversity measurement isidentifying and measuring the richness of fauna and flora inforests, which Tuli (2011) calls “natural sciences” or “hard science”. “Hard science” contributions show that sacred forests are more diverse in terms of fauna and flora than other forests (such as plantations and protected areas). While these contributions are important, studies using positivist strategies are still needed given that sacred forests and natural sites form a “global phenomenon”. Verschuuren (2010) argues that it is not really possible to fully know the number of sacred sites that exist in the world today. Wild et al. (2010) synthesized hundreds of previous studies and concluded that sacred natural sites are globally important, but largely unrecognized.

Furthermore, positivism-minded studies have been criticized for failing to recognize the intangible contributions of natural resources and forests, such as provision of environmental services and cultural conservation. Saway (2015) suggests in a recent essay that understanding the holistic relationships between local cultures and their forests is fundamental to resolvingthe conflicts created by theexisting biases held by forest managers who overlooklocal and indigenous cultures in favour of business interests. Similarly, Singer (2013) argues that ecological and economic arguments present only one side of the story, suggesting further research on the topic of socially-contested phenomena in the bioenergy production of forest residuals in the US is needed. In this regard, there are calls for less use of survey-based methods to recognize the multi-dimensions of natural resources, including sacred natural sites and forests. Agnoletti andEmanueli (2016) call for “a less hard science and more detailed ethnographic-humanist analysis of” of sacred natural sites and forests (pp. 15).

Chapter 5
Sacred forests and local community: the larger picture

5.1. Introduction

This chapter analyses information about sacred forests both globally and in Vietnam. Firstly, it presents how the term “sacred forest” is used and defined, globally and locally. Acrosstwo separate sections, sacred forests aroundthe world and in Vietnam are comparedin terms oflegal recognition, quantitative figures, and significance economically, environmentally, and culturally using data related to forests and indigenous communities globally and in Vietnam.

5.2. Sacred forests and indigenous people globally

The “field of attraction”

For many academics, sacred natural sites and sacred forests form a “field of attraction” that represents a deep relationship between the cultural conservation of local people and environmental protection (Kleinod, 2014; Loh & Harmon, 2005). This represents a deep relationship between local culture and nature (Tsing, 1999, in Kleinod, 2014). This “field” is attractive because, as Kleinod (2014) highlights, the term “sacred forest” is complex and its analytical use is thus at times problematic. To Loh andHarmon (2005), this “field” is attractive because it is increasingly on the agendas of many governments, global institutions, environmentalists, scholars, and the public in general.

As a “field of attraction”, these places are often presented in sophisticated terms. In terms of biodiversity protection, they are often referred to as global “hotspots” of biodiverse significance (Boadi et al., 2017), “islands of ecological diversity” (Schelhas & Greenberg, 1996), or “mini biosphere reserves” (Mehta & Jain, 2011). Sacred forests in urban landscapes are said to act as the "lungs" of the city, as well as providing much needed vegetation cover (Behera & Pradhan 2015). Culturally, sacred forests are seen as “the first temples of worship” in the world (Varner 2005, citing in Deb, 2007).

Using the term “field of attraction”, many studies relevant to sacred natural sites and forests have been carried out over decades and on a global scale, with many reviews indicating an

abundance of empirical studies relevant to sacred forests. Muli (2016) provides archival data from29 relevant empirical studies to date. Agnoletti andEmanueli (2016) compiled a collection of papers recognising the inextricable link between biological and cultural diversity. Furthermore, the popularityof this field of study is also evident when usingthe Google search engine, which at the time of writing (2018, September 24nd) showed 29,700 results (0.33 seconds) for the search term "sacred forest" together with relevant terms "grove" and "site".

In the global landscape

Sacred natural sites and spiritual forests cover a "tiny" portion of theearth (see Table 5a below). As shown in the table, it is estimated thatabout 15% of the world's surface is "sacred land" or land that has sacred implications and is owned by religious groups (Muli, 2016). Of this, only about 8% (2.4% of the Earth) is categorized as sacred forests (Muli, 2016).

Table 5a: Global land proportion of sacred natural sites (including sacred forests) and land owned by indigenous communities

No.	***Sector***	***Proportion against the Earth's space (%)***
1	Sacred natural sites	15
-	*Sacred forest*	*2.4*
-	*Non-forested*	*12.6*
2	Land owned by indigenous people	22

Source: Adapted from (Muli, 2016).

In terms of quantity and geographical distribution, sacred forests as a "global phenomenon" number in the hundreds of thousands (Verschuuren, 2010; Andhra Pradesh, 2015).There arelikely still thousands that are unknown andVerschuuren (2010) comprehensively concludes

that because of their diversity, origins, and different and varying degrees of sacrality, it is not really possible to have fully know the number of sacred sites that exist in the world today.

Nationally and locally, no country except for India has well documented sacred forests (Andhra Pradesh, 2015). India is believed to be the top country in terms of sacred forests because of quantity and comprehensive documentation (e.g., Ramakrishnan, 1996; Chandrashekara & Sankar, 1998; Ramanujam & Kadamban, 2001, citing in Andhra Pradesh, 2015). Indian studies indicate there are between 100,000 and 150,000 sacred forests across the country, belonging to about 600,000 villages throughoutthe Indian countryside (Bhagwat et al., 2005; Malhotra et al., 2001; Behera & Pradhan, 2015; Gupta & Sharma, 2013; Shepheard-Walwyn, 2014; Soury, 2007; Verschuuren, 2010) and scholars in the country and internationally have expended huge amounts of effort to document sacred forests in some regions (see Appendix 11).

In term of size, there is no classification grouping sacred forests, however theyare mostly small (as indicated in many studies)(Daye & Healey, 2015; Dudley et al. 2010; Soury, 2007; Andhra Pradesh, nd). For example, Soury (2007), referring to Juhé-Beaulaton (2005), indicates that in Benin, the majority of sacred forests are small (often between 0.5 ha and 20 ha). Another example shows that the size of individual sacred forests varies from a clump of a few trees to several hectares. These examples are significant given the context that non-sacred forests are much larger in size,for example the smallest of the top twenty protected areas in size is Nazca-Desventuradas Marine Park, which is 300,035 (sq. km) (Maiorano et al., 2008).

Physically, they are not only “tiny”, but also “fragmented” and “isolated”. As an example, sacred forests in Vietnam are often very small (2-3 hectares or less) and many are located in the middle of rice fields, without connectivity to other forests (IUCN, 2018).In other countries, Daye and Healey (2015) indicate that sacred forests often exist as isolated patches of natural forest, which makes them highly vulnerable. Daye and Healey (2015) highlight their small size and increasing edge density, which indicates high vulnerability.

Who own the forests?

There is a lack of recognition of the rights to utilize forests generally and sacred land in particular oflocal people and indigenous communities. This lack of recognition is evident in how the ownership of forests is seen generally and in sacred land classification in particular.

In terms of forest ownership generally, local people and indigenous communities own a small proportion of global forests (see the Figure 5a), even thoughtheir livelihood and culture is almost always dependent onthese resources (see the Table 4b and 4c). According to Myrna (2016), governments still administer 60% of these forest areas, while firms and private individuals administer 9%. The final 31% is actually used by forest dependent people, which accounts for 25% of the global population. Proportionally, very little forest is designated to indigenous communities who depend on it the most. In 2015, only 12.5% of the global forests were held by indigenous peoples (Figure 5a).

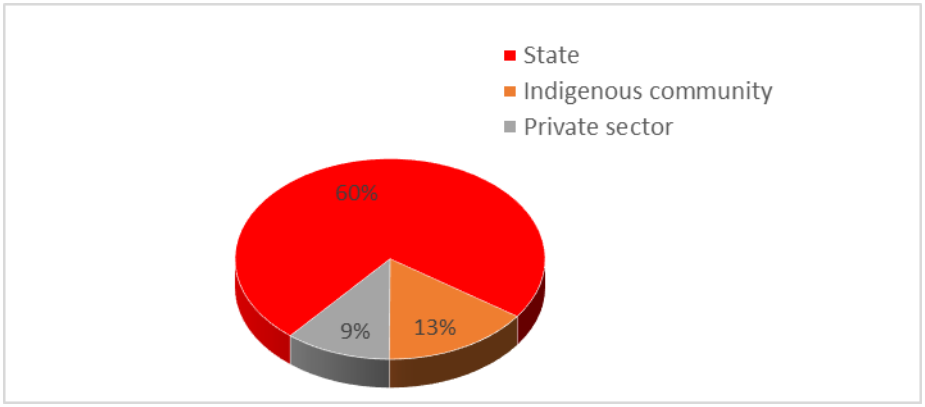


Figure 5a: Percentage of global forests by ownership

Source: Adapted from Myrna (2016).

In terms of ownership, sacred forests classificationsfavour non-indigenous people, a fact which is at odds with the claim that sacred forests are typically created by local people and mostly belong to indigenous communities (Claudia, 2008 and Uyeda et al., 2014, in Daye & Healey, 2015). Indigenous peoples conserve these forest patches in their areas for cultural purposes. In addition to their cultural significance, these forests are also important for the conservation of species useful to local people (Wadley & Colfer, 2004) and for biodiversity

conservation (Mgumia & Oba, 2003; Anderson et al., 2005; Bhagwat & Rutte, 2006, in Daye & Healey, 2015).

However, many of these natural resources have legally been assigned to non-indigenous communities, and areprivately owned by individuals or families, are common property of communities, or are owned bygovernments (Vipat & Bharucha, 2014; Kushalappa & Raghavendra, 2012; Rutte, 2011; Soury (2007; Malhotra et al., 2001). Kushalappa andRaghavendra (2012) indicate that there are ten types of sacred forest ownership, including private, joint government and community, and common property. Similarly, sacred forests canalso be classified asclub goods, private goods, public goods, and common-pool resources (Rutte, 2011; Malhotra et al., 2001; Vipat & Bharucha, 2014).It is argued that these classificationstake management control awayfrom, and thus alienate, local people (Chandrakanth et al., 2004, in Ormsby, 2013).

Highly dependent for the poor

There are many ways in which local people are dependent on sacred forests, and this dependency is especially strong among indigenous communities and the poor.

The poor are the most dependent on forest resources for their livelihoods and cultural activities, and it is estimated that 25% of the world's population are so called "forest people" who depend in varying degrees on forests for their livelihoods (not just for food, but also for fuel, livestock grazing areas, and medicine) (Sophie, 2012, in Hall & Patrinos, 2012). Indigenous peoples constitute about 5% of the world's population, yet account for about 15% of the world's poor (Hall & Patrinos, 2012) (referred to the Table 5b for more detail).

Table 5b: Global population in terms of: forest dependency, poverty and ethnicity

No.	***Sector***	***Proportion against the world population (%)***	***Proportion against the world POOR population (%)***
1	Forest dependent people	25	
2	Indigenous people	5	

2	Poor people		15

Source: Adapted from Hall andPatrinos (2012).

There is a crucial link that exists between indigenous communities, bio-diversity, and cultural conservation (Table 5c). In accordance with the table, it is estimated that 80% of the planet's biodiversity is situated on 22% of the world's land surface; these areas correspond to where indigenous people are (WRI, 2005, citing in Sobrevila, 2008). Indigenous communities represent 95% of the world's cultural diversity, even though they constitute a minority of the overall population (Sobrevila, 2008; Stevens (2014). As indicated above, indigenous people account for only 5% of world population, and it is worth noting that 50% to 90% of the total income of the poorest people isdependent on natural ecosystems (Roger, 2012).

Table 5c: Global data indicate roles of indigenous people in: biodiversity protection and cultural conservation

No.	***Indigenous people***	***Proportion against the world biodiversity (%)***	***Proportion against the world culture (%)***
1	Occupied 22% the Earth's space	80	
2	Account for 5% of world population		95

Source: Adapted from Sobrevila (2008) and Muli (2016).

5.3. Sacred forests and ethnic minority people in Vietnam

In Vietnam, sacred forests are publicly and academically referred to usinga number of Vietnamese terms, such as: "*rừng thiêng*" (sacred forest), "*rừng cấm*" (forbidden forest), and "*rừng tâm linh*" (spiritual forest) (Århem, 2009; Phuong, 2003; Bao Nhan dan, 2011; TCLN,

2016; and VietBao, 2016 etc). These terms are often accompanied with the adjunct "ethnic minority group", which in Vietnamese's closest translation is "*dân tộc thiểu số*". This term for an ethnic group is similar to the term"indigenous people" used elsewhere around the world. It is widely used in both official documents and popular speech when referring to ethnic groups of a smaller size than the majority Vietnamese.

Initial findings made by PanNature, a domestic NGO in Vietnam, indicates there are many sacred forests in the country that are well-managed by local communities (IUCN, 2018). As reported by the domestic NGO LISO, since 1995 49 local communities have claimed their forestland rights (to 16,012.64 hectares) in 6 regions of the country (LISO, 2014). Indicated in this report, 17 sacred forests are documented (LISO, 2014: 26), and 14 case studies are related to customary forest land.

Although anumber of these places aredocumented, it is believed there are many more sacred forests in need to be documented, given that Vietnam is a country with 50% of its 32 million hectares categorised as forested land. Noticeably, it is also a diverse country in terms of culture, with 14% of the total population belong to 53 ethnic minorities (GoV, 2012). With this in mind, this sections potlights initial understandings of sacred forests in Vietnam. It begins with a discussion ofthe lack of recognition by the government and public of sacred forests and reviewshow sacred forests have been researched in Vietnam.

Extremely un-recognized

Long history of assumption

Until last year, the term "sacred forest" had not appeared in government legal documents, despite their existence. There are thousands of sacred forests in Vietnam that are managed well by thousands of local communities. Terms relevant to sacred forests have been excluded fromlegal documents, despite the country changingits forestry laws in 1959, 1972, 1991, 2004, and 2017(VNAO, 2017).That said,scientific communities and the public have tirelesslyadvocated for the recognition of sacred forests for local communities. This lack of basic recognition led to long and "painful" years advocating for the rights of local people overnatural resources.

As written into*Vietnamese* laws, sacred forests have been officially designated the title "special use forests" (eg. VNAO, 2009: Article 4). This un-recognition of sacred forests and

the rights of local communities is consistent with forest governance in the country generally. As recently indicated in KimDung et al. (2017), the extent to which *Vietnamese* laws and policies support community forest management remains unclear. Similarly, a literature review made by Hoang et al. (2017) shows that Vietnam's policies on forest management do not fully comply with the principles of good governance.

As local communities do not have recognizedrights under forestry laws to manage and use these land areas (LISO, 2014), painful evidence of marginalization on the ground is obvious. Basically, these forests are not recognized in official documents at local levels, in either province, district, commune, or village. For example, while sacred forests exist in *Si Ma Cai* district, *Lao Cai* province, forestry legal documents from local authorities only indicate 'protected forests' and 'production forests'(Dam, 2012), which are among the three types of forests classified under the law (VNAO, 2009: Article 4).

Although they are referred to as 'special use forests' under the law, sacred forests actually belong to the two other forest classifications as well (see Figure 4b, presented in the following section, for a more detail). It is estimated that up to 80% of special use forests (SUFs) are inhabited, either by communities who have historical claims on this land or by those who have encroached on buffer areas (Kim Dung et al., 2017).

From 2017

On November 15th, 2017, the Vietnamese government passed a forestry law thatfor the first time recognizes that sacred forest land belongs to indigenous communities (ICCO, 2017). At the same time the term "sacred forest" wasfor the first time recognized under the law (ICCO, 2017) throughthe use ofterms relevant to the definition of "sacred forest", such as "holy forest" and "belief forests" (VNAO, 2017: Article 5).This is promising, as it means that 10,000 households will legally receive nearly 90,000 hectares of sacred community forest(ICCO, 2017).

This initial "sweet" outcome is the result of decades of effort made by local communities, as well as social organizations. These efforts at times are to the form of efforts to visualize the existence of sacred forests through studies. As introduced above and reported by the domestic NGO LISO, since 1995 49 local communities have claimed their forestland rights to 16,012.64 hectares in 6 regions of the country (LISO, 2014).

Numerous legal efforts had been made overmore than twenty years to lobby and advocate land and forest rights for local people (LISO, 2014: 26; ICCO, 2017). Progress towards this goal is evident in the land law (2003), which recognizes women and gives them an equal name in land titles and forest preservation law (2004). This gives indigenous peoples the right to access the forest and its resources (ICCO, 2017). The PanNature NGO worked to gain legal recognition forthousands of sacred forests as part of a national protected area system, through a revision of the 2017 Forest Protection and Development Law (FPDL) and Biodiversity Law (2018) (CSVPA, 2018).

Confusing data

It is not officially known how manysacred forests areowned by local communities and how many by the state, but there is a sense that these sacred forests are legally owned by both local communities and the state. This is because Vietnam has been decentralizing the handling of forests in favour of local communities for decades (McElwee, 2012; Huy Tuan, 2006).

In relation to forests generally, Vietnam is a tropical country with 32 million hectares categorised as forests (GoV, 2012) (Table 5d). Geographically, Vietnam is located in the Southeast of Asia and shares borders with China to the north, and Laos and Cambodia to the west, while to its east is the East Sea (for more detail referred to the Figure 6a, presented in the Chapter 6 – section 6.2).

Table 5d: Some facts about Vietnam

No.	***Indication***	***Data***
1	Total land (roughly)	32 million hectares
-	*Forest land against total land (roughly)*	*50%*
2	Total population (roughly)	95 million people
-	*Number of ethnic groups*	*54*
-	*Number of minority groups*	*53*

-	*Population of the ethnic minority groups against the total population*	*14%*

Source: Adapted from Vietnam General Statistic Office, 2018.

Forestry land (50% of the country's total land area) is divided into threecategories: Production Forests, Protection Forests and Special Use Forests (protected areas) (Figure 5b). In this regard, Production Forests, Protection Forests and Special Use Forests (protected areas) account for 51.7%, 35% and 13.3% of forest land, respectively (Vietnam National Assembly Office, 2009a) (Hoang, 2012). Sacred forests in Vietnam belong to all forest types classified by the countries forestry laws, as well as global forest categories.

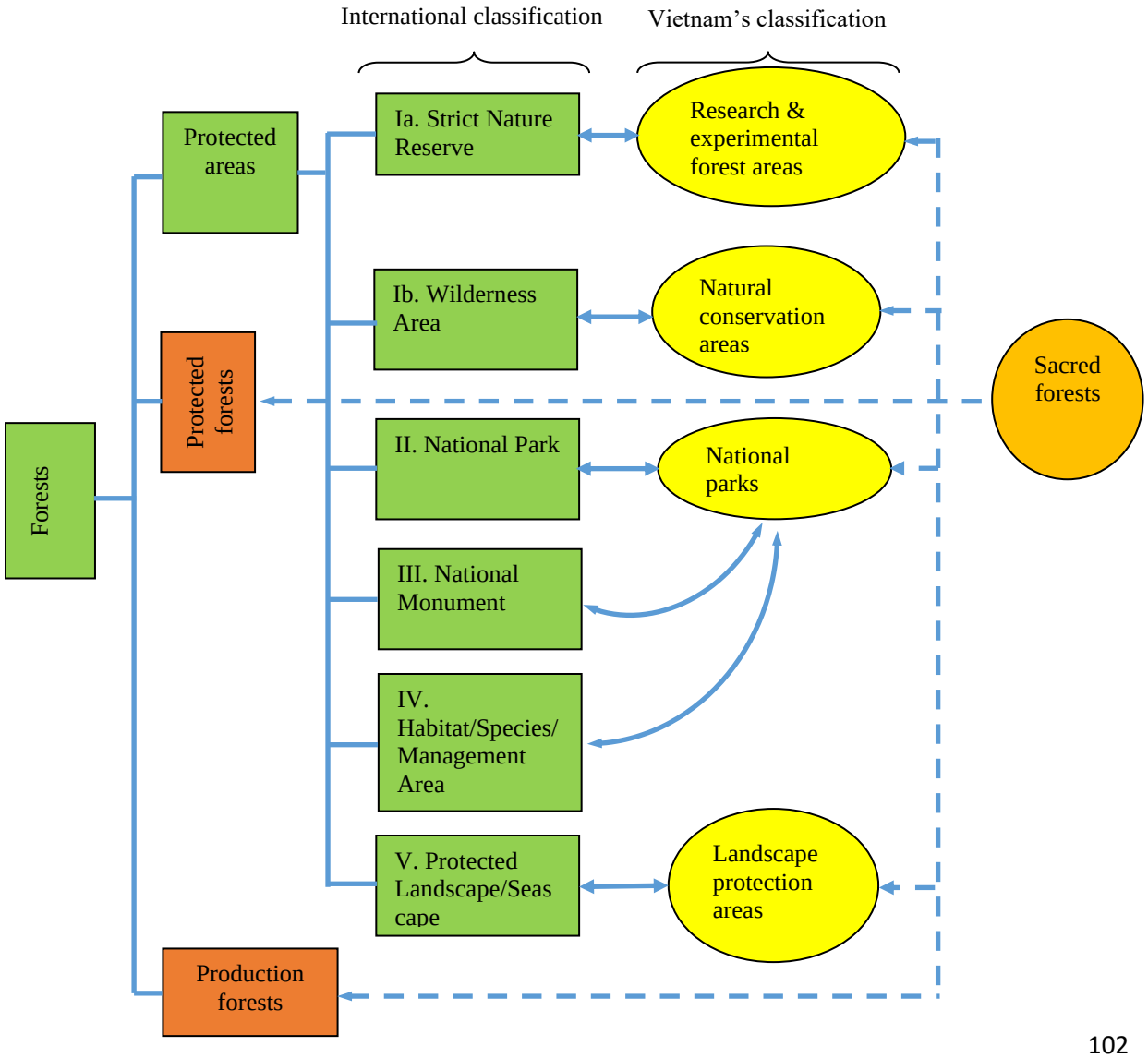


Figure 5b: Vietnam's sacred forests in consideration of forest classification

Source: Adapted from Adapted from Vietnam Government Office (2010); Borrini-Feyerabend et al (2004).

In terms of forest ownership, although the country has been through decades of forest land ownership being decentralizing by the State, only 24% of forests are owned by local people, of which 4% belong to ethnic minority groups (MARD, 2014). From another data source, it is evident that while the *Kinh* people (or the majority group) legally own 25% of all forestland, ethnic minority communities hold certificates to less than 1% (Sikor & Tan, 2011). Table 5e and Figure 5c provide a sense of forest ownership in Vietnam to date.

Table 5e: Forest ownership in Vietnam

No.	***Stakeholder***	***Proportion (%)***
1	Indigenous community	1
2	State	79
2	Private sector (eg. households, forest enterprises owned by individual)	20
	Total	**100**

Source: Adapted from Vietnam General Statistic Office, 2018.

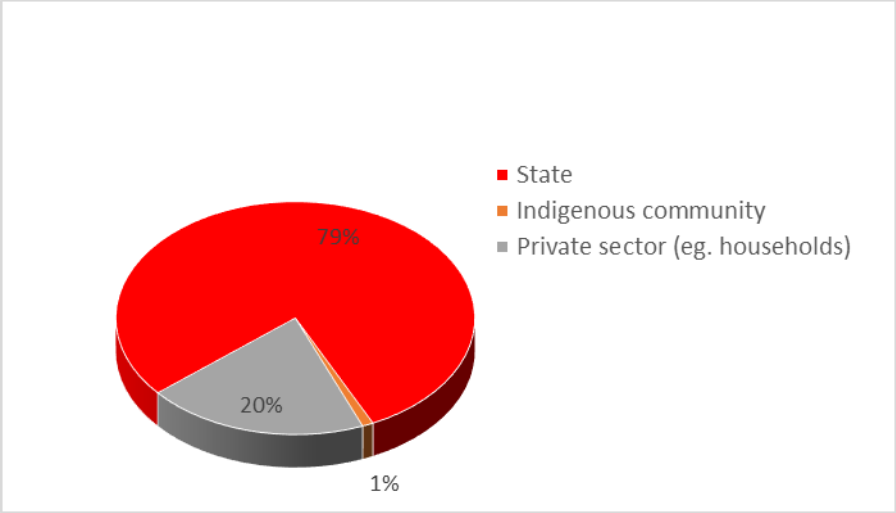


Figure 5c: Percentage of Vietnam's forest land by ownership

Source: Adapted from Vietnam General Statistic Office, 2018.

Although they are referred to as 'special use forests' under the law, sacred forests actually belong to the two remaining types of forests (see Figure 4b – presented in the previous section). However, it is still unknown how manysacred forests there are, and how much of these places are managed and used by local communities.It is argued that in reality, communities manage more forests than the official record of less than 1% suggests (Nguyen, 2009). However, there are indications that there is actually 8.9% tolerated customary management of ancestral land that is owned by the State, and in which many parts of forests are managed by around 10.000 mostly ethnic minority communities (Balooni& Inoue, 2007).In supporting this claim, Kim Dung et al. (2017) indicate thatup to 80% of SUFs are inhabited, either by communities who have historical claims on the land, or by those who encroach on buffer areas (cited from Cuong et al., 2009).

5.4. Conclusion

Compared to protected areas and plantations, sacred forests are proportionally smaller, accounting for just 2.4% of the Earth's surface. However, they are an uncountable "global phenomenon" and can be found on all continents and in the Austro - Pacific region. They are isolated in terms of location and connectivity, most probably due to their "tiny" size compared

to other forests, such as protected areas and plantations. Having reviewed hundreds of prior studies,Wild et al. (2010) came to the conclusion that sacred natural sites are globally important but largely unrecognized.

While sacred forests are extremely significant to local people and indigenous communities, there is a considerable ownership gap between forest dependent people and the government and private sector. Generally governments still administer 60%of global forest areas, while firms and private individuals administer 9%.

There are many aspects that make up the dependency between sacred forests and local people, especially indigenous communities and the poor. These aspects are correlated between the global data of forests, local people, indigenous people and the poor. The tight connection between sacred forests and indigenous communities is typical of forest dependence by 25% of the world's population, who are mostly local people and marginalized in many respects, including economic, social, political, and environment. In this regard, 5% of the world's population are indigenous communities and account for 15% of the poor. There is a crucial link between indigenous communities and many other aspects of nature, such as biodiversity and cultural conservation. As discussed, 80% of the planet's biodiversity is on 22% of the world's land surface which indigenous people occupy, and which is important as they represent 95% of the world's cultural diversity. It is worth noting that 50% to 90 % of total livelihood income of the poorest people is dependent on natural ecosystems, including forests and sacred forests.

Generally, sacred forests are multi-dimensional and are described as such in many studies outside Vietnam (eg. Boadi et al., 2017; Ganguli et al., 2016; Behera & Pradhan, 2015). Environmental organizations such as IUCN, Convention on Biological Diversity, have called for governments to consider declaring sacred groves significant global biodiversity "hotspots" (Boadi et al., 2017). As pointed out by Anh & Pham (2005) and Anh (2010), the Forestry and Land Administration sector of Vietnam should include issues related to sacred forests in their policy formulation (Anh, 2010).

Vietnam'snewest law in this area has recognized these forests and the rights of local communities, which is the result of more than twenty years of advocation at ground level to

the central government. PanNature has been working to gain legal recognition forthousands of sacred forests as part of a national protected area system through a revision of the Forest Protection (2017), Development Law (FPDL), and the Biodiversity Law (2018) (IUCN, 2018). As a result of these efforts (LISO, 2014: 26; ICCO, 2017), on November 15th, 2017 the Vietnamese government passed a forestry law thatfor the first time recognizes that sacred community forest land belongs to indigenous communities (ICCO, 2017).

Data confusion is consistent with global claims sacred forestsarenot well-documented (Wild et al., 2010). In some parts of the world, however, sacred forests are well-documented. For example, there is at least one sacred forest in every 300 acres of land of the *Kodagu* region (Ragavendra & Kushalappa, 2011) of India, which has the mostcomprehensive documentation of sacred forests of any country (e.g., Ramakrishnan, 1996; Chandrashekara & Sankar, 1998; Ramanujam & Kadamban, 2001, citing in Andhra Pradesh, nd). The lack of data on sacred forests in Vietnam is inconsistent with the recognition of sacred forests on a global level (Muli, 2016).

As sacred forests have been widely studied around the world, an expansion of the geographical range of studies in Vietnam is urgently needed. Following the example of other countries in this regard (e.g. India), this discussion advocates for an inventory of the number, size, and distribution of sacred forests, as well as a systematic botanical survey of these forests. Suggestions of expanding the geographical range of studies are in line with global recommendations independently indicated in Dudley et al. (2010) and Verschuuren (2010). On a country scale, as suggested in Ormsby (2013), India requiredcomprehensive studies of sacred forests, specifically advocating for an inventory of the number, size, and distribution of as well as systematic botanical surveys of these places. This should also be the case for Vietnam.

The need for expansion of the geographical range of studies is critical to Vietnam for other reasons. While it is indicated in Dudley et al. (2010) that conservation organizations are starting to investigate how sacred forests can be incorporated into broad conservation policies, the Vietnamese government only just passed a forestry law in 2017 recognizing that sacred community forest land belongs to indigenous communities (ICCO, 2017). This previous lack of recognition is becoming untenable internationally, with environmental organizations such

as IUCN and the Convention on Biological Diversity calling for sacred forests to be declaredglobal biodiversity “hotspots” of significance (Boadi et al., 2017).

Specifically, there are some studies that support the expansion of the geographical range of studies within Vietnam, andAnh and Pham (2005) suggestcarrying outstudies on a larger scale on the scared forests of ethnic groups such as *Tay, Nùng, Dao, H’Mong*, *Bana*, *Ê ê, Mnong*. More specifically, this study proposes studying the history of spirit forests, their formation and development, and their role in supporting social economic development. The NGO PanNature is looking for academic studies and relevant materials that will provide support for recognizing the biodiversity and conservation value of small sacred forests (IUCN, 2018).

Chapter 6
Background information on Vietnam and the case studies

6.1. Introduction

This chapter presents background information on Vietnam and the two villages that acted as case studies forthis research. While information about the two case studies wasdirectly collected in the field by the researcher, the information about Vietnam is derived from a combination of published and unpublished documents, and from public discourse on its development history and the management of the forestry sector. Beginning with information about the natural, social and economic conditions of the country, there is also a brief overview of the country's most recent history of political arrangements and their relevance to land and forest management. A broad picture of the country's recent development focuses on key statistics related to the natural, social, and economic factorsthat influence the management of the protected area system. This chapter also outlines the political system, administration and civil associations, and structure of the country. It overviews forest management acrossthe country, and looks atgovernment bodies, legal frameworks, forest land categories, dependency on forests by local people, and some critical forest management issues. This chapter concludes with a section on the two village case studies.

6.2. Vietnam's present natural, social, and economic conditions

6.2.1. Geographical location

Vietnam is located in Southeast Asia and shares borders with China to the north and Laos and Cambodia to the west, andhas an East Sea coast to the east (Figure 6a). Vietnam is long and narrow, stretching over 1,600 km between latitude 8°N andlatitude 24°N. Vietnam's total land area is about 33,115,000 hectares (331,000sq km), almost three-quarters of which is covered by hills and mountains (Hoang, 2012).

Figure 6a: Vietnam's geographical location

Source: Adapted from DCAS (nd).

6.2.2. Natural and enviromentalcondition

Located partially in the tropics and strongly influenced by the South China Sea, Vietnam's climate is a monsoon-influenced continental and tropical climate typical of mainland Southeast Asia (Tri et al., 1998). In the north, the climate is monsoonal with four distinct seasons (spring, summer, autumn, and winter) while in the south, the climate is tropical monsoon, with two seasons (rainy and dry) (Figure 6b).

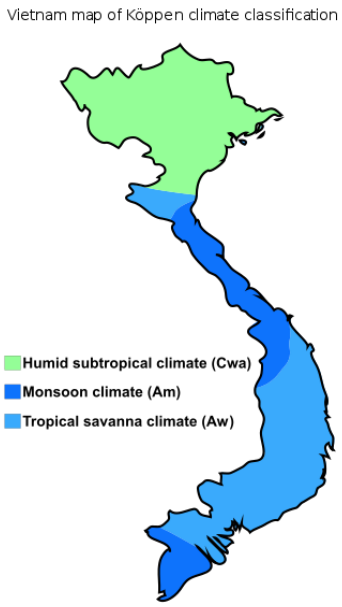


Figure 6b: Vietnam's climate classification

Source: Adapted from Wikimedia Commons (nd).

Based on its geographic and climatic conditions (Phan & Ngo, 2009), there are seven different climatic regions in Vietnam: Northwest, Northeast, North Delta (Red River Delta), North Central (North Central Coast), South Central (South Central Coast), Central Highlands, and the South (Figure 6c). Mean annual rainfall in Vietnam ranges from 700 to 5,000 mm (28 to 197 in) although most places in the country receive between 1,400 to 2,400 mm (55 to 94 in) (Nguyen et al., 2014).

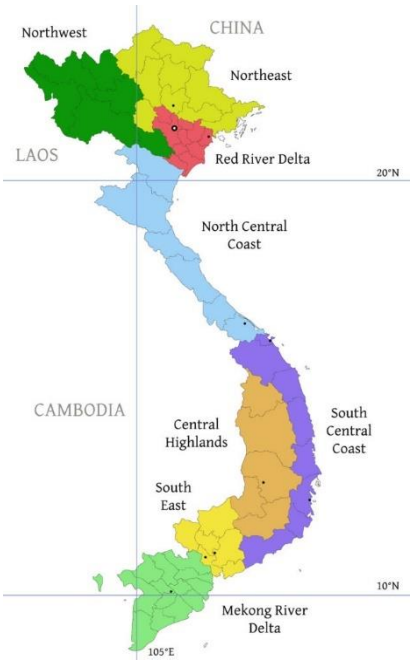


Figure 6c: Vietnam's climate regions

Source: Adapted from American Specialty Tea Alliance (nd).

6.2.3. Economic development

Over recent decades, Vietnam's economy has progressed at speed. Beginning in 1986 with *Đổi mới* (renovation), it soon became one of the world's largest rice exporters, although it experiences domestic rice shortages and issues of poverty (Vuong, 2014; Edwards & Phan, 2013; Boothroyd & Phạm, 2000). Economically, growth rates, living standards, trade, and industry have also rapidly developed under the *Đổi mới* reforms (Edwards & Phan, 2013).

Figure 6d shows that it took Vietnam just four years post1986 to catch up with and grow faster than most countries in the world. Between 1986 and 2007, the average growth rate per capita for Vietnam is 5.2%, which is almost double the rate of 2.7% for low and middle-income countries, and more than two and a half times higher than the rate of 2.0% for high-

income countries. While these steady growth rates have considerably increased living standards in Vietnam,benefitting the poor more in the 1990s (Klump, 2007; Gaiha & Thapa, 2007), Dang (2012) questions whether the benefits have beenshared equally amongst ethnic groups.

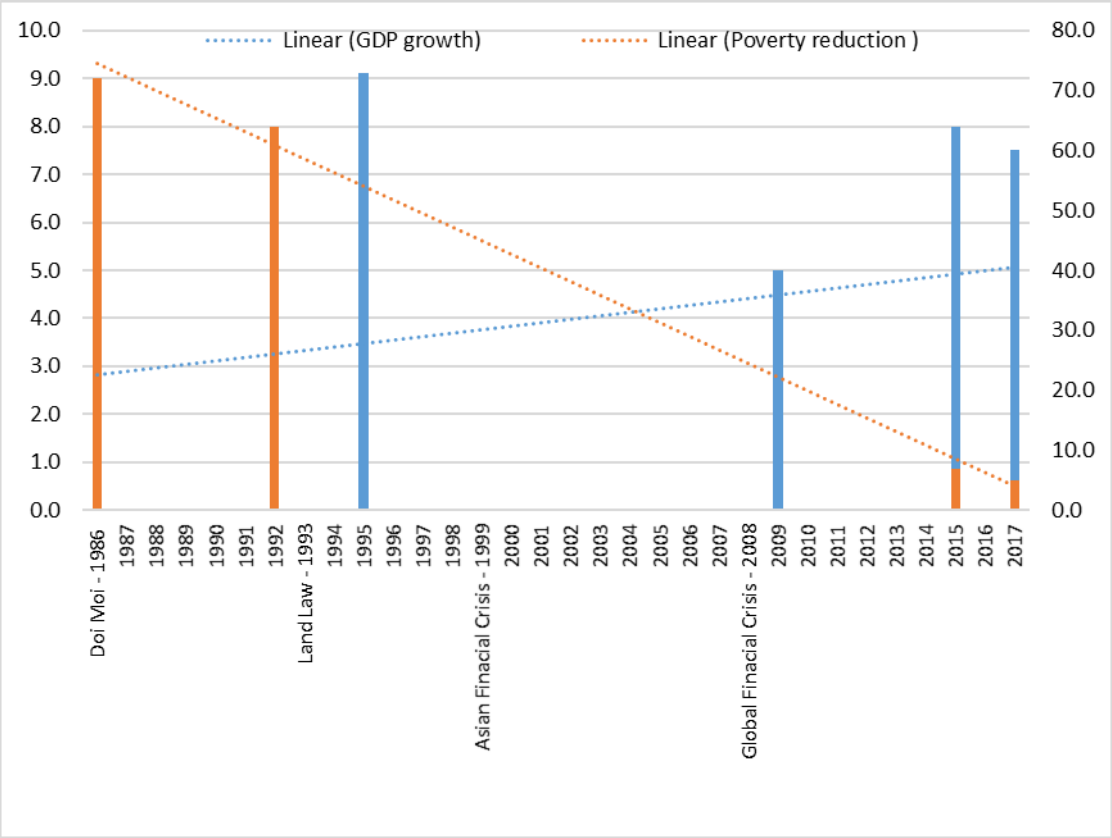


Figure 6d: Vietnam Economy Since "*Doi Moi*": Key figures and Events

Sources: Adapted from (Dang, 2012).

Improvement of the country's economy is associated with poverty reduction. The poverty rate as defined by the World Bank declined from 58% in 1993 to 37% in 1998 and 15.5%in 2008 (UNDP, 2016; Klump, 2007). That said, the poverty rate is varies regionally. The level of poverty in the mountainous areas is higher than in cities and lowland rural areas for various reasons, such as poor infrastructure in the mountain areas, being remote, lacking resources to invest in production, and low levels of literacy (Vietnam General Statistic Office, 2017; Beresford, 2008; Henin, 2002).

6.2.4. Political system

Vietnam is a one-party state, governed by the Communist party. Economic and political decisions are subject to Party policy, with socialist political structures established down to commune level throughout the country (Thayer, 2009; Dalton & Ong, 2005; Kerkvliet & Marr, 2004). The Party ideology is disseminated and reproduced in even the remotest parts of the country inmany ways, including radio broadcasts, loudspeakers, and large posters. Posters are used across the country to help explain new laws and policies (Figure 6e). The Vietnamese political leadership makes use of local leaders to implement economic plans and to unify the socio-culturally heterogeneous nation (see also Son, 2012; Wells-Dang, 2014).

Figure 6e: Posters disseminating the Party's ideology with a focus on forest management.

Sources: Photo taken by author on 20th September 2018.

The Communist Party of Vietnam (CPV) rules via the 200-member Central Committee elected every five years, and these members hold all senior government positions (Figure 6f). Aside from the Communist Party, the most powerful institutions within the Vietnamese government are the executive agencies created by the 1992 constitution: the offices of the President and the Prime Minister, with the president also serving as the nominal commander of the armed forces and chairman ofthe Council on National Defence and Security.

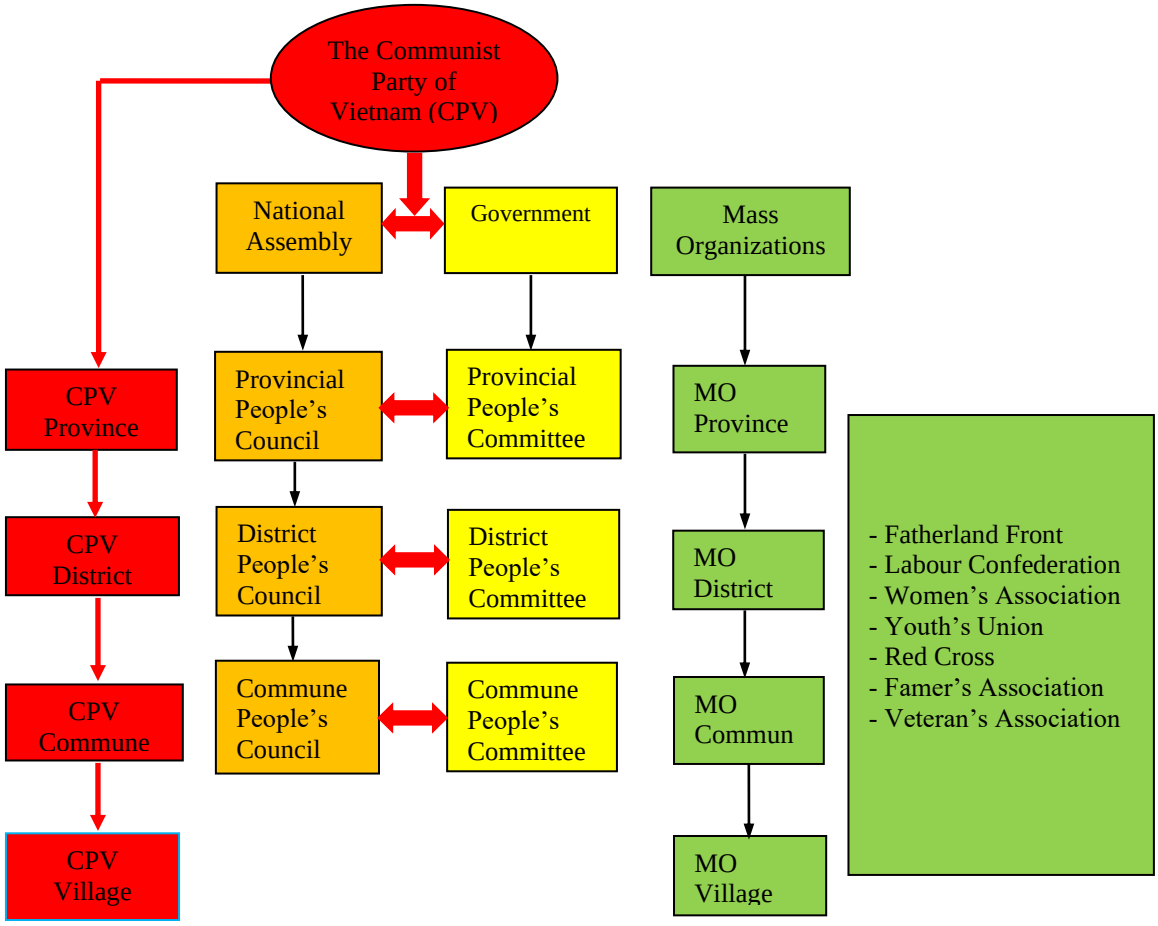


Figure 6f: Vietnam's political system

Source: Adapted from Kerkvliet (2005).

As indicated in the diagram, constitutionally the National Assembly is the highest representative body of the people. Through its constitution-making powers it defines its own role and the roles of the State President, the Government, the local people's councils, people's committees, and the Supreme People's Court. The assembly can elect and remove members of the Council of Ministers, the Chief Justice of the Supreme People's Court, and the Procurator General of the People's Supreme Organ of Control. It has the power to draw up, adopt, and amend the constitution, and to make and amend laws. It is also responsible for legislating and implementing state plans and budgets. Finally, it has the power to initiate wars and to assume other duties and powers it deems necessary. The term for each session of the National

Assembly is five years, and meetings are convened twice a year, or more frequently if called for by the Council of State.

In Figure 6f, the Prime Minister heads the Government with a cabinet composed of three deputy prime ministers, and the heads of twenty-six ministries and commissions, all confirmed by the National Assembly. Each minister is responsible for preparing development strategies and plans to be submitted to the Communist Party and State authorities, developing drafts relating to policies, laws, and regulations, and adopting regulatory documents for the implementation of State policies (see Thayer, 2009; Kerkvliet & Marr, 2004 for more detail).

6.2.5. Land and forest management: current and history

a) Current

The government distributes land by sector, a system thatis summarized in Table 6a and Figure 6c. Ofthe country's total area of 33,115,000 hectares, forestry land comprises 16,240,000 hectares or 49.04% (Vietnam Ministry of Agriculture and Rural Development, 2018), but forest coverage accounts for only 37% of the country's total land area (Vietnam Ministry of Agriculture and Rural Development, 2018; Vietnam General Statistics Office, 2017).

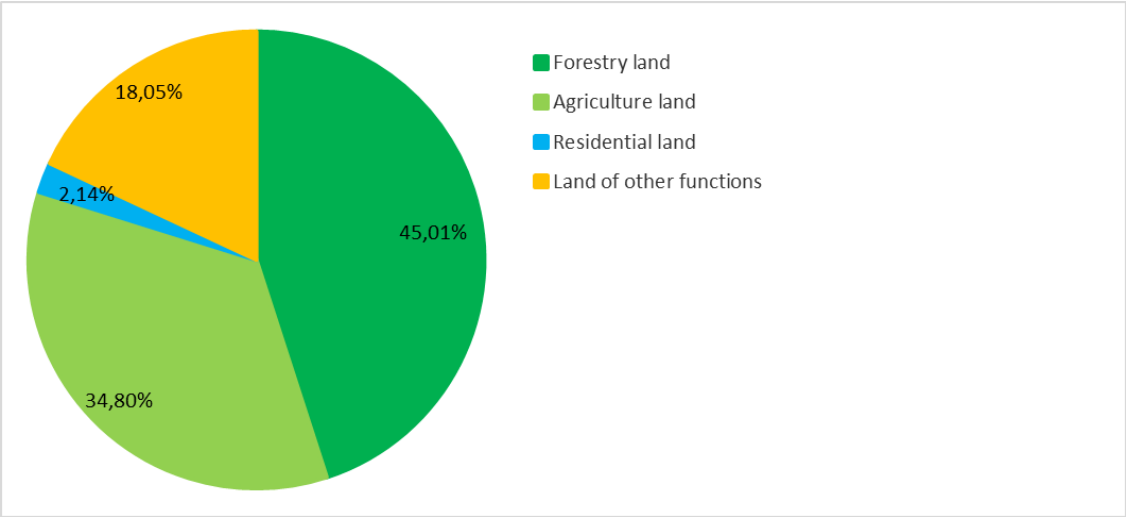


Figure 6g: Land distribution by sector

Source: Adapted from Vietnam Ministry of Agriculture and Rural Development (2018).

Table 6a: Vietnam's land use distribution by sector

No.	*Sector*	*Areas (hectare)*	*Proportion (%)*
	Forestry land	14.908,400	45.01
	Agriculture land	11.526,800	34.80
	Residential land	708,400	2.14
	Land of other functions (infrastructure, industry, public premises, unused land, etc.)	5.979,500	18.05
	Total	**33.123,100**	**100**

Source: Vietnam Ministry of Agriculture and Rural Development (2018).

b) History

Prior to 1858, when annexed as a colony by the *French*, Vietnam was a feudal country ruled by Kings (Hong et al., 2008). During that time, there were three main land ownership classes: state, community, and private (Phung, 2017). State land included land managed by the central State (headed by Kings) and properties managed by local authorities as assigned by the Kings; private land was managed by individual households, landlords and Buddhist temples; andcommunal land was managed and accessed by local communities, and could be listed as part of state land (because under the laws of the time, any land not privately owned belonged to the State). During this period, the States' land-use policies were mainly concerned with the management and expansion of agricultural land (McLeod et al., 2001).

Between 1858 and 1986 these three land ownership regimes were still in evidence, although there were significant changes in the wake of French colonization and the American War. In the colonisation era from 1858 to 1945, management of the country's land was controlled by the French (Hong et al., 2008; Thayer, 1992). Land ownership did not significantly change

from 1954 until1975, when the country was in a bloody war (known in Vietnam as the Second Indochina War or the American War, and elsewhere as the Vietnam War). However, land ownership significantly shifted to state control when the Vietnamese Government took over first from the French, and then from the Americans after 1975 (Hoang, 2012).

Following independence from the French on the 2nd September 1945 and the formation of the Democratic Republic of Vietnam (Marr, 1997), new land management policies decreed that land that had previously belonged to landlords and French land owners was to be confiscated (Tuyen, 2010; Ravallion & Van de Walle, 2008). Even more significantly, after taking over the south of the country from theAmericans (1975), the development model in the north (characterised by a centrally-planned economy) was applied to the whole country (Sam & Trung, 2003). Subsequently, land became the property of all the people and was managed entirely by the State (McElwee, 2009). In the forestry sector the State continued to play a central role, with more state forestry enterprises and government run protected areas being established (McElwee, 2009; Sam & Trung, 2003). In addition, collectivization, especially in agricultural and forestry production, was implemented (Dang et al., 2012; Cuc et al., 1993).

The negative effects of collectivization (deep poverty) let to the launching of "*Đổi Mới*" (Renovation) in 1986 in an attempt to improve the country's development. This resulted in a rapid shift from a centrally-planned economy to a market-oriented economy (Sam & Trung, 2003). This development strategy quickly resulted in a significant change in land management systems and an improvement in crop productivity. In relation to the land management system, instead of being managed in collectives and state enterprises, it was allocated to individual people, households, and businesses for private production, although the State still holds all land management rightsofficially (Dang et al., 2012; McElwee, 2009; Sam & Trung, 2003).

For the management of forest resources, within the three forest categories (indicated in Chapter 4, Section 3) of production forests, protected forests and special use forests, the State manages and operates most of the two latter categories, while a large proportion of production forests have been allocated to private entities such as businesses, communities, households, and individuals. Also, there are unallocated areas that are managed by the governmentand include areas communally managed and accessed by local communities (Le, 2015; Dang, 2010). Inareas of communally managed land, there exists a management regime of "hybrid

governance", which includes management activities exercised by customary laws and management enforcement governed by formal government laws (Sikor & Tran, 2006).

6.2.6. Population and ethnic minority communities

The population of Vietnam according to the 2017 national census is 97,281,338 people, ranking as the world's 13th largest country by population (Vietnam General Statistics Office, 2017). The census showed an urban shift, with 70.4% of the country's population living in rural areas, down from 76.3% in 1999. The percentage of the population living in highland and mountainous regions, where most of the country's forest land is situated, is 19% (Vietnam General Statistics Office, 2017; Vietnam Government Web Portal, 2017). These regions are also where most of the country's 54 ethnic groups reside, of which 53 officially recognized ethnic groups account for only 14% of the total population (Vietnam General Statistics Office, 2017). During recent years, the population growth rate in cities and industrial regions has overtaken other regions as a result of the migration from rural areas of those seeking non-farm employment (Communist Party of Vietnam Online Newspaper, 2009).

The 53 recognized ethnic minorities make up between 10-15% of the population. Specifically, the largest minorities are: *Tay* 1.63 million (1.9%), *Thai* 1.55 million (1.8%), *Muong* 1.27 million (1.5%), *Khmer Krom* 1.26 million (1.5%), *Hmong* 1.07 million (1.2%), *Nung* 0.97 million (1.1%), *Hoa* (*Chinese*) 0.82 million (1%), plus others (Vietnam General Statistics Office, 2017). The Vietnamese are the majority, accounting for 86% of the population (Vietnam General Statistics Office, 2017).

Almost all the ethnic groups are thought to share the same historical and cultural horizon, which spreads from south of the *Yangtze River* to the Islands of Southeast Asia (Enfield & Comrie, 2015). According to scholars, some of the groups have been in Vietnam since the earliest times (such as the *Viet* and *Tay-Thai* groups), while othersarrived as recently as the 17th to 19th centuries (such as the *Hanhi*, *Lahu*, and*Lolo* groups).

According to Taylor (2007), there are a number of religious minorities in Vietnam, including significant *Catholic* and *Protestant* minorities, as well as the *Cao Dai* and *Hoa Hao*, which both originated in the Mekong River Delta during the nineteenth century (both are native and

distinct *Buddhist* sects). There are also the*Sunni* and *Bashi Muslims* in the south, and among the *Chams*, perhaps 15% are still adherents of *Hinduism*. The latter's language belongs to the *Malayo-Polynesian* branch of the *Austronesian* language family, and they are generally thought to be descendants of the ancient kingdom of *Champa* (Thurgood, 1999).

According to Baulch et al (2007), most of the official ethnic groups inhabit the interior mountainous highlands, though some, such as the *Khmer Krom*, *Hoa* and *Lao*, are concentrated in the cities or lowlands. Most of the other remaining minorities tend to live in the mountains of the north, down the *Truong Son* mountain range, and in the central highlands. These ethnic groups create diversity for Vietnamese society in terms of language, origin, and religion.

Despite the government assistance efforts represented by *Đổi mới*, ethnic minority groups still lag behind in living standards (Castella et al., 2006; Dollar et al., 2004).Some have raised concerns that ethnic minority groups are subject to stereotypes that portray them negatively as backward, superstitious, and conservative (Diez, 2016; Thang, 2001). The World Bank, in their Country Social Analysis Report World Bank (2009), identifiesd six areas where ethnic minorities are disadvantaged compared with the ethnic majority, *Kinh*.

6.3. Government, administration and civil association structures

The government has five levels—four formal and one informal.The four formal levels of administration (Vietnam National Assembly Office, 1995) consist of: (1) Central government; (2) Provincial and City People's Committees; (3) District, City and Town People's Committees and; (4) Commune, Ward and Town People's Committees – the lowest government level (Figure 6h). The informal level of administration is at the village and equivalent levels (e.g. Blocks of Residential Areas and Residential Streets), which is also an important governance model. This is the management layer closest to the people. Heads of villages are elected and approved by their Commune People's Committees (Vietnam National Assembly Office, 2006).

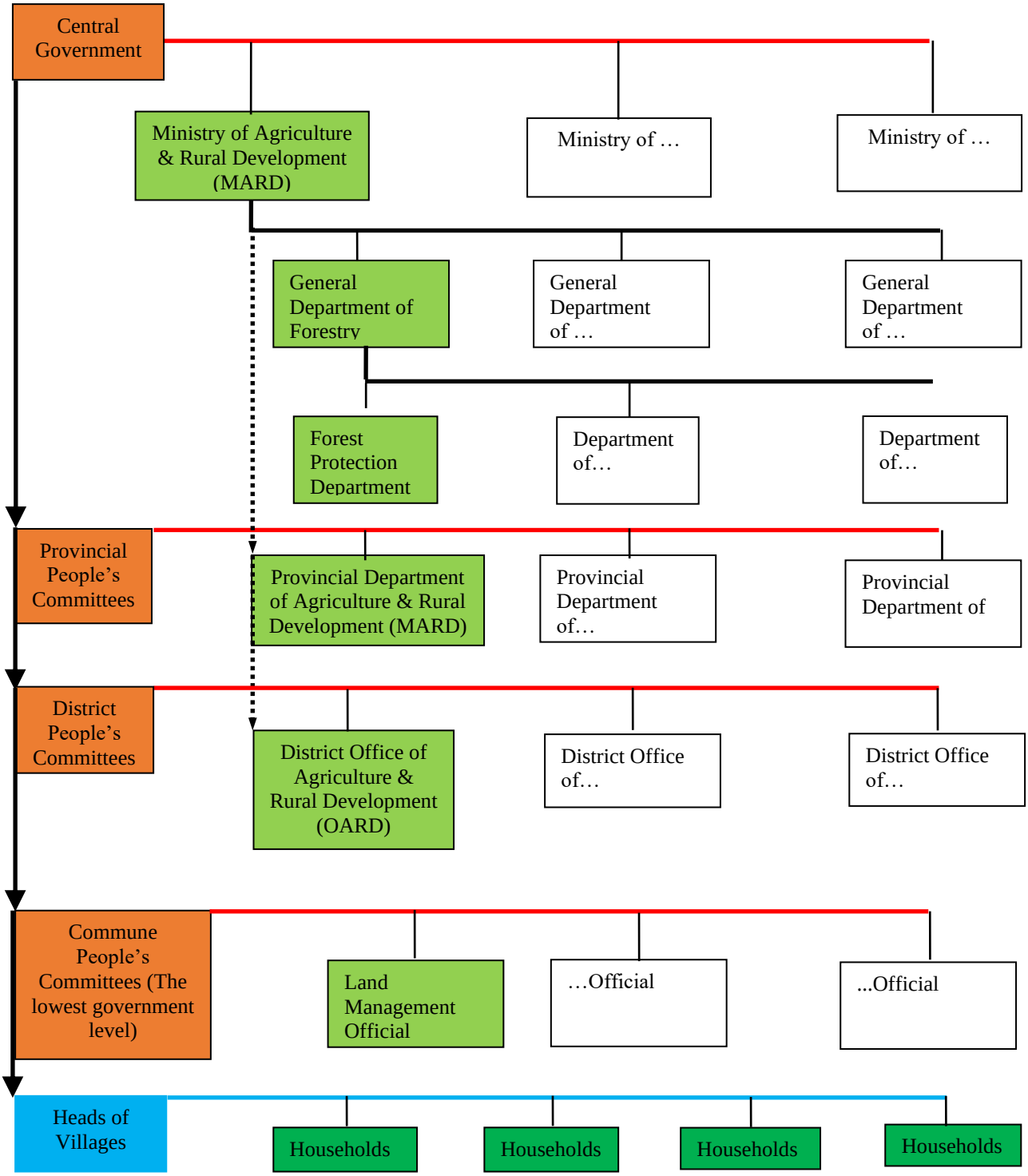


Figure 6h: Vietnam's government structure, focussing on the forestry sector

Source: Adapted from Vietnam National Assembly Office (1995); Vietnam General Department of Forestry (2010).

In the ministries at the central level, there are departments and offices that have similar titles to the provincial and district levelsand Figure 6h shows the Ministry of Agriculture and Rural Development as an example (Vietnam General Department of Forestry, 2010). The lower levels of government departments are responsible for the execution of plans and decisions made by the higher levels. There are officials appointed to execute key roles at local government level, such as those needed for land management, social and cultural affairs, and accounting (Vietnam National Assembly Office, 1995).

The administration at each government level is formed by and subject to oversight by a legislative body at the same level, that comprises the National Assembly, the Provincial (and equivalent) People's Councils, the District (and equivalent) People's Councils and the Commune (and equivalent) People's Councils. The lower legislative levels are supervised directly by the next highest levels (Table 6b) (Vietnam National Assembly Office, 2017).

Table 6b: Governance arrangements in Vietnam

Administration Levels	***Excutive system***	***Legislative system***	***Court system***
Central	Central Government	National Assembly	Supreme People's Court
Province	Provincial and City People's Committees	Provincial and City People's Councils	Provincial and City People's Courts
District	District (and equivalent) People's Comittees	District (and equivalent) People's Councils	District (and equivalent) People's Courts
Commune	Commune (and equivalent) People's Comittees	Commune (and equivalent) People's Councils	
Village	Heads of villages (and equivalent)	Village (and equivalent) councils (un-legislated)	Informal institutional systems (un-legislated)

Source: Adapted from Vietnam National Assembly Office (2017).

The Judicial systemconsists of the Supreme People's Court, the Provincial (and equivalent) People's Courts and the District (and equivalent) People's Courts. Generally, the courts at the higher levels review judgements made by the lower courts. In addition to this main system, military courts administer the central and military regions and each region comprises several provinces and cities to address problems caused by members of military forces (Hoang, 2012).

Civil associations are important organizations supporting government activities. Particularly, the Youth Union, the Women's Union, and the Veterans Association (Appendixes 3b, 3c and 3d). These organizations can also getinvolved in forest management and they exist at every level from the central level to the villagelevel, and are reflected in agencies and institutions (such as government departments, companies, and schools). All the branches of these organizations at the lower levels are subordinated to the next level (The Veterans Association of Vietnam, 2019; Vietnam Women's Union, 2019; Youth Union of Ho Chi Minh City, 2019).

6.4. Management of the forestry sector in Vietnam

6.4.1. Responsible government body

In relation tothe management of forests and forest resources, the Ministry of Agriculture and Rural Development (MARD) and the Ministry of Natural Resources and Environment (MONRE) are executively responsible (Figure 5f). Under MONRE, the General Department of Land Administration is responsible for the enforcement of forestland law. MARD and the Vietnam Administration of Forestry and Forest Protection Department are responsible for consultation and enforcing forest and forest resource protection across the country, as well as concurrently managing six inter-provincial national parks (Cuc Phuong, Tam Dao, Ba Vi, Yok Don, Cat Tien, and Bach Ma) (Decree 119/2006/ND-CP). MARD is also responsible for most aspects of SUF management, including establishment, policy review and adjustment, managementsupervision, and resource inventory (Decree 117/2010/ND-CP) (Kim Dung et al., 2017).

6.4.2. Legal framework

Vietnam's legal framework for the management of natural resources includes forestry laws, land laws, and environmental protection laws. These legislative instruments are specifically aimed at improving the managementof natural resources, and they issued the National Plan for Environment and Sustainable Development (NPESD) in 1991 and the Biodiversity Action Plan (BAP) in 1994. In relation to the Forestry Laws, there have been five amendments, in 1959, 1972, 1991, 2004, and 2017, respectively(VNAO, 2017).TheLand Laws were amended in 1988, 1993, 2003, and 2013, respectively(VNAO, 2017).

6.4.3. Forest land categories

Forestry land comprises 16,240,000 hectares, or 49.04% of the country's total land area, divided into three categories: production forests, protection forests, and special use forests. Production forests, protection forests, and special use forests make up51.7%, 35%, and 13.3% of the total forest land, respectively (Vietnam National Assembly Office, 2009a).

6.4.4. Forests and local livelihoods

Vietnam's forests provide livelihoods for about 25 million people who live in and near forests (GoV, 2005; Nguyen, 2007). Forests in Vietnam are very important in terms of the roles they play in the national economy, poverty reduction and socio-economic development in the mountainous regions, and environmental protection. According to current statistics, the forestry sector share of the economy including value gained from forest plantations, harvesting, and services, accounts for only 1% of the GDP (FSSP, 2007; GoV, 2005). However, it is likely that this figure underestimates the true economic value of the forestry sector in terms of its contribution to local people's livelihoods and to environmental services. The forestry sector has actively participated in job creation and income generation for many people, particularly for ethnic minorities. For example, in the *Bac Kan* province income from forestry activities for households that have recently emerged from poverty is equal to 33% of total income, whereas for the better-off household groups it is equal to 17% (Son, 2012)

Many ethnic minority people in the northern uplands of Vietnam have lived in the midst of forests for centuries. People in these areas are poor due to their lack of access to markets and weak infrastructure (Sunderlin & Huynh, 2005). Forest products, especially NTFPs, are important to the livelihoods of people in remote uplands. These people tend to live near or in

remaining stands of naturalforests, and rely heavily on fuel wood and a variety of other NTFPs for food, fodder, medicines, construction materials, and other items (Figure 6k). Some NTFPs are sold for supplementary household cash income or traded for essentials such as rice (Sunderlin & Huynh, 2005; Dang & Tran, 2006).

Figure 6k: A Dao woman explaining about herbal medicine

Sources: Photo taken by author on 20th September 2018.

6.4.5. Forest management issues

Vietnam needs to restore large amounts of forests lost or damaged due to the consequences of war and economic development. It has been more than 50 years since the destruction of Vietnam's southern forests hit itspeak in 1967. Forests declined sharply, going from from 43% in the early 1940s to about 17% by the end of the 1970s. The remaining forests are degraded, poorly stocked, and badly fragmented. In addition to the threat of habitat loss, many species are endangered, or have been lost as a result of massive over-use. Collection of rare medicinal plants and rare timbers, over-hunting, and collecting for the wildlife trade have also had a significant impact. Many species are confined to small geographical ranges and occur at low individual densities, which render them highly vulnerable as forests are cut into smaller patches and eventually completely cleared (Wood et al., 2013).

6.5. Case study

This research uses two villages as case studies, one in the Northern region and the other in the Central Highland region (Figure 6h).These two villages havethree sacred forests between them that belong to two different ethnic minority communities, the *H'Mong* and *Bahnar* minoritites. There are two sacred forests in the first village case study, in the *Lao Cai* province in the North of Vietnam. The second village case study is in *Kontum* province in the Central Highland region of the country.

Figure 6l: Locations of the case studies

Source: Adapted from UTL (nd).

6.5.1. Location

"Lung San" village is situated in mountains that reach over 1,100 meters, and belongs to the *Lung Sui* commune, in the *Si Ma Cai* district of the *Lao Cai* province on the northern border of Vietnam. *K'Bay* village is situated in the plateau region and belongs to the *Hơ Moong* commune in the *Sa Thay* district of the *Kon Tum* province; it lies in the Central Highlands of Vietnam, on the border with Cambodia.

The topography of *Lung San* village is 25% steep land, created by the many mountains that run from the southwest to northeast. In contrast, *K'Bay* village is located at the end of the *Hơ Moong* commune in the north and was originally on a well-known river, the *Pô Cô*. This location is significant in terms of supporting the village with water resources.

Similarities between the case studies include lifestyle, ethnic background, and the use of forest resources to meet the needs of local people. All local people in these case study areas are farmers who utilise swidden agricultural methods, and the majority belong to the *H'Mong* and *Bahnar* groups. All local people use resources from forests for their livelihoods, although the extent of dependence varies between case study areas and between households within these areas. Local people in these villages are involved in management activities initiated by the protected area management boards, althoughthe degree of theirinvolvement differs between case studies, as does its effectiveness.

6.5.2. Name and history

Lung San (pronounced in Vietnamese "*Lồng Sang*", and meaning (according to local residents) "*Zaj laug nyob suam nghuab*", or meaning "Land of Dragon". This implies that *Lung San* is a hilly region of fertile land and dense forest located along the watershed of the *Chay River*. Local people perceive this land as sacred and as governed by the "Land of Dragon" Spirit, which protects the lives of all creatures. There is a running stream year-round. According to the villagers, this stream is home to the Water Dragon Spirit, known as "*Lồng Sênh*" / "*Sênh Sui*" or *"Zaj laug tus nyob hauv dej"*in the *H'mong* language (Dam, 2012).

Together with some other villages within the commune (eg. *Đắk Wơk, Đắk Do, K'Tu, K' Tol*), *K'Bay* village has been evacuated three times inrecent decades due to unexpected events such

as endemic disease, internal wars between ethnic communities, external war (the American War), and migration programs posted by the Government of Vietnam (Zhang et al., 2006). This evacuation is a result of the resettlement of its commune (*Hơ Moong*), which began in 2006 after being separated from another commune, the *Sa Nhon, Sa Thay* district, *Kon Tum* province, for the construction of the Pleikrong hydropower plant (Tran *et al*. 2015).

6.5.3. People and life

Lung San belongs to the *H'Mong* people, while *K'Bay* villagers are *Bahnar*. The *Lung San* village has 63 households, and 327 people, including 161 women, and 141 laborers, and all are *H'mon*.There are seven clans represented, such as the*Vang* clan (21 households, 33.4%), *Giang* clan (16 households, 22.5%), *Cu* clan (12 households, 19.1%), *Sung* clan (5 households, 7.9%), *Hau* clan (5 households, 6.3%), *Ly* clan (5 households, 6.3%) and *Trang* clan (1 household, 1.5%) (Dam, 2012). This group originated from *Tù Chua Sang* – an area in *Yunnan* province, China. As a result of living and farming practices of shifting cultivation, and the civil war, the *H'mon g*moved and settled in the village about 300-400 years ago. To maintain their customs and help eachother in th eprocess of moving, cultivation, and making houses, the *H'mong* community normally move inclans or in-groups of 2-3 clans (Dam, 2012).

The population of *K'Bay*village includes 1,300 households, and has a poverty rate of over 56%. In the past, it was up to 71% based on the multi-dimensional criteria of poverty that the Government of Vietnam set (Michaud & Turner, 2000). Population growth is relatively high, at 3% each year (Barabantseva, 2019), and newly separated households continue to suffer from the lack of land for production and house building (Dang, et al., 2017).

6.5.4. In relation to forests and land use

As *Lung San* is located in a "moutainous region", the life of the villagers is intimately embedded in each piece of land and forest. Among the 313.9 hectares of village land, 139.6 hectares is forestland, which accounts for 44.4% (Dam, 2012). The total land is divided into18 plots, as common village property. Incontrast, very few households in *K'Bay* village have forestland. In the field study, there were few forests available for allocation to individual households, however they had not been properly allocated yet.

Traditionally in these communities, natural resource governance is based primarily on kinship structures. Therefore, the practical meaning and effective use and governance of forestland depends largely on the relationships between clans. Any changes in land use planning or disagreements in the process of land use must involve consultation with clan heads. These communities always prioritize members within the same clans during the process of buying, selling, leasing, or transferring land. Although forestland belongs to each clan, other families in the community participate in the process of management voluntarily and in a viable manner on the basis of the unwritten regulations of the clan, which arerecognized by the whole community.

6.6. Conclusion

This chapter provides information on Vietnam across four themes. Firstly, Section 6.2 presents the natural, social and economic conditions of Vietnam. As shown, Vietnam is a tropical country located in Southeast Asia, bordering China, Laos and Cambodia, bounded by the East Sea. Politically, it is a one-party state, having been governed by the Communist Party for almost 80 years. Economically, it has been rapidly developed under *Đổi mới* reforms started in 1986, after suffuring from nearly 100 years of war with France and then America. It is a forested country with 49.04% of its 33,115,000 hectares total area classified as forest land.

This section highlights that focus on supporting ethnic minority people is important for the country's development generally and forest management in particular; eventhough these people account for only 14% of the total population. These people mostly reside in highland and mountainous regions, which is where most of the country's forestland is situated. These areas are diverse in terms of their forests, languages, origins, and religions. This section discusses the marginalization of ethnic minority people. Dang (2012) identifies six areas where ethnic minorities are at a disadvantage compared with the majority, subjected to stereotypes that portray them as backward, superstitious, and conservative.

Secondly, Section 6.3 presents the administration and civil structures of the country. As shown, the government is arranged into five levels, including four formal and one informal.The four levels of administration (Vietnam National Assembly Office, 1995) consist

of (1) Central government; (2) Provincial and City People's Committees; (3) District, City and Town People's Committees and; (4) Commune, Ward and Town People's Committees. The lowest government level, and the informal level of administration, is the village and equivalent levels e.g. Blocks of Residential Areas and Residential Streets, which are important tothe governance model. This is the management layer closest to the people, with heads of villages elected and approved by their Commune People's Committees (Vietnam National Assembly Office, 2006). Vietnam as a one-party state and is governed by the Communist Party. The Party has the greatest influence over the executive and exercises control through the 200-member Central Committee, all of whom hold senior government positions.

Thirdly, Section 6.4 presents aspects of forestry in the country, which includes responsible government bodies, legal frameworks, forest land categories, dependency on forests by local people, and some critical forest management issues. This section highlights the need to strengthen traditional forest management, which is under threat from *Đổi mới* (innovation) reforms, and as a result of the consequences of the war with America.

The dependency on forests by local people discussed in this section reveals that forests provide livelihoods for almost 25 million people, although official records indicate economic gain from forest plantations, harvesting, and services accounts for only 1% of the total GDP (FSSP, 2007; GoV, 2005). This section suggests this figure isan under-estimation of the true economic value of the forest sector in terms of its contribution to local people's livelihoods and environmental services. This section refers to empirical studies of the *Bac Kan* province, where it has beenfound that income from forestry activities for the poorest households is about 33% of the total income, whereas for the better-off households about 17% of their income comes from forestry (Son, 2012).

Finally, Section 6.5 provides information about the two village case studies conducted as part of this research.It covers information on four topics: geographical location; culture and history; people and life; and forest and land use. Information on the villages is also analysed in relation to their geographical region.

Chapter 7
A holistic concept of sacred forests

7.1. Introduction

This chapter reflects the first research question, which is how the term "sacred forest" is understood by local people and indigenous communities in Vietnam. In responding to the research question, every respondent indicated the name of their sacred forest, whereas few of them are able to provide detailed answers, and shows that sacred forests named differently in different places and ethnic groups, there is also varied knowledge on their social significance. The concept of sacred forests under the lense of local people is diverse with many features including ownership, value, and history. However, the sacredness of sacred forests change over time, and with the demographics of respondents, which is a matter for addressing in this research question, although there is general agreement as to what types and individual forests are sacred.

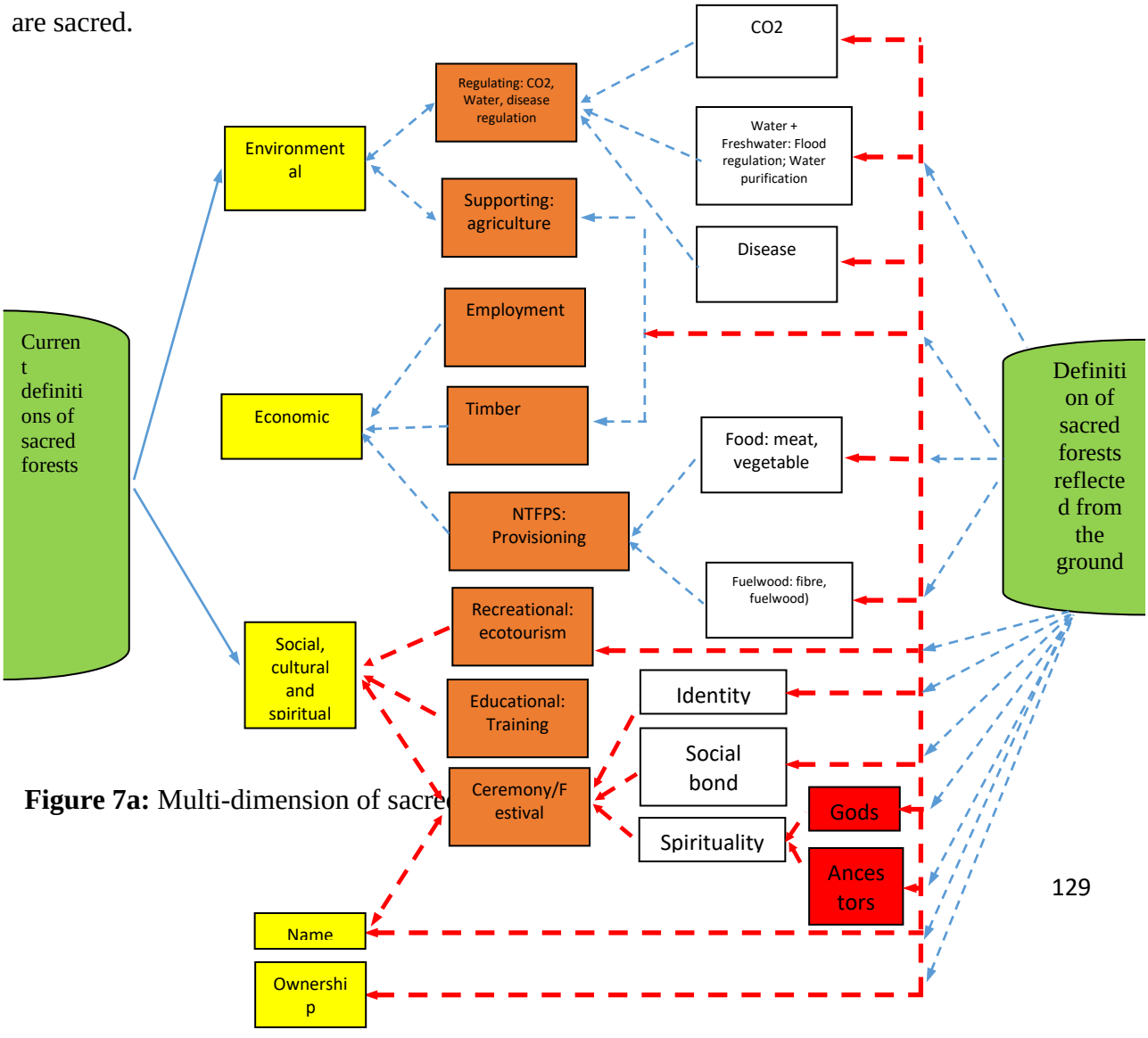


Figure 7a: Multi-dimension of sacre

In order to highlight the diversity of characteristics indicated by research participants, Figure 7a shows a comparison between local indicators and that in exsiting studies. As shown in the figure, the two systems of definitions and direction of arrows represents connections between elements. The red arrows indicate that relevant elements are connected culturally and spiritually. Dashed arrows (- - -) are used to differentiate between the two perspectives and where the arrows originated. Coloured shapes are used to differentiate elements.

7.2. Widely used terms

It is common that the names of sacred forests are identified first in responding to the question "what does it means in regards to the term "sacred forest". All interviewees know the names of sacred forests in their villages, but only 18 interviewees were able to articulate a discussion about their history, or to legends related to their sacred forests. Statistics indicate that the 18 interviewees hold backgrounds in either government or are famers are the most knowledegebale.

To those whose backgrounds are in government, sacred forests are referred to by many public terms in Vietnamese such as "*rừng thiêng*" (sacred forest), "*rừng cấm*" (forbidden forest), "*rừng tâm linh*" (spiritual forest). Vietnamese is the national language and the majority ethnic group in the country (Chapter 6, Section 6.2). In Table 7a below, these terms are listed in the right hand column of the table. Also, the respondents admitted using these terms interchangeably. For example, the three terms "*rừng thiêng*" (sacred forest), "*rừng cấm*" (forbidden forest), "*rừng tâm linh*" (spiritual forest) are equally used by the public in Vietnam.

Table 7a: Names of sacred forests provided by respondents

Local name by ethnic minority groups	***Public name (Vietnamese)***
H'Mong "*Thủ Ty*", "*Nao Long*"	- "*Rừng thiêng*" (sacred forest) - "*Rừng cấm*" (forbidden forest) - "*Rừng tâm linh*" (spiritual forest)
Ha Nhi: "*Thủ Ty*", "*Gà Ma Do*", "*Mu Thu Do*", and "*A Gờ Là Do*".	
Thai: "*Hồn Chiềng*" ('*đầu mường*' - infront of	

the village, and '*Cửa Pọng*' - if located at the back of the village); "*Đông Căm*", "*Pá Heo*"	- "*Hon cua rung*" (Soul of the forest) - "*Rừng Nghĩa Địa'* (burial forest) - "*Rung cua than*" (Gosh forest, and - "*Rung tho troi*" (Worship forest) - "*Nước giọt'*" ("dropping water")
Dao: "*Chía*"	
Ka Dong: "*Neng ngọc* "	
Bru – Van Kieu: "*La Pay*"	
Bahnar: "*Nước giọt'*"	

Source: Field notes, 2017.

For those respondents whose backgrounds are not in government, sacred forests are named differently. These respondents also provide a number of other local terms for sacred forests used by ethnic minority groups in the country. In Table 7a above, the local terms for sacred forests are listed in the left hand column. To sum up, 100% of my informants know the names of the sacred forests belonging to their communities, and also the names of the forests belonging to their ethnic groups living in other parts of the country. For example, the name "*Nao Long*" is used to indicate the *Nao Long* sacred forests that each *H'Mong* community has. There are thousands of *H'Mong* communities living not only in Vietnam, but also in China, the neighbouring country.

This usage is consistent with the practice of multiple names used in the media in Vietnam, where sacred forests are publicly referred to by of the *Vietnamese* terms, mentioned above: "*rừng thiêng*" (sacred forest), "*rừng cấm*" (forbidden forest), "*rừng tâm linh*" (spiritual forest) (Nhân Dân, 2016; Vietnam General Department of Forestry, 2016; and Tuổi Trẻ, 2016 etc.). Shown in the boxes 7a & b - below are some extracts from media outlets that indicate these terms.

Box 7a: An evidence on a media outlet that the term "*Rừng thiêng*" and "*rừng cấm"* **are indicated interchangeably**

Lời cảm ơn từ "*Rừng thiêng*": viết cho người Hà Nhì. Hai cái "cùng" nhưng lại mang đến một sự "khác biệt"; đó là những gì để nói về người đồng bào Hà Nhì, một trong số 53 dân tộc ít người của nước ta, đang sinh sống chủ yếu ở miền biên cương của Tổ quốc - Lào Cai. Cùng với thiên nhiên không ưu đãi và sự "thiệt thòi" của dân tộc nhỏ bé về số lượng nhưng người Hà Nhì lại làm được điều lớn lao mà hơn 85% dân số người Kinh không làm được - gìn giữ rừng cho hiện tại và muôn đời sau.

Trước hết, luật tục người Hà Nhì quy định, bất cứ ai vi phạm *rừng cấm* cũng đều bị xử phạt nặng và buộc phải trồng lại đúng loài cây đã chặt phá. Đây thực sự là một luật tục rất độc đáo và nhân văn - với ý nghĩa "lấy gì của thiên nhiên thì trả lại cho thiên nhiên" hay đồng nghĩa với các khái niệm thịnh hành lâu nay như phát triển bền vững, tăng trưởng xanh…

Source: Adapted from Nhân Dân, 2016.

Box 7b: An evidence on a media outlet that the term "*rừng tâm linh*" **is indicated**

Trong xã hội Cơ Tu truyền thống, làng là một tổ chức cơ bản và duy nhất có quyền sở hữu và quản lý đối với tài nguyên rừng cộng đồng thông qua luật tục. Gắn liền với hình thức sở hữu và quản lý này là loại hình rừng tâm linh mang nhiều giá trị vật chất lẫn tinh thần. Thông qua những câu chuyện về *rừng tâm linh* của người Cơ Tu ở tỉnh Thừa Thiên Huế, chúng tôi muốn khẳng định những giá trị tích cực của rừng tâm linh truyền thống và xem đó như là một giải pháp hữu hiệu để bảo vệ rừng hiện nay.

Source: Adapted from Tuổi Trẻ, 2016.

These common terms are also refered to in some academic work related to sacred forests in the country (Ho, 2016; Bayrak et al., 2015; Århem, 2009; Phuong, 2003). For example, Ho

(2016) uses the term “soul of the forest” in relation to the sacred forests of the *Cơ Tu*, another ethnic minority group in the country.

The diversity of sacred forest names used by the public, and academia in Vietnam is consistent with international uses. As indicated in Chapter 5 (Section 5.3), sacred forests are publicly and academically referred to by a number of interchangeable terms: *“sacred forest”,* or “*sacred grove*”, or “*spiritual forest*”, or “*traditional forest reserve*” (Dudley et al., 2010; Schelhas & Greenberg, 1996). The diversity of local names of sacred forests is similarly evident in other countries. As discussed in Chapter 5 (Section 5.2), sacred forests are called “*kaya*” in Kenya, while in *Zanzibar*, Tanzania in East Africa, names of forests are known as *misitu ya jadior misitu ya mizimi*, in the *Swahili* language (Vipat & Bharucha, 2014).

The findings in Vietnam show that local people are most familiar with sacred forests by using common names, before interpreting what these places mean to them. This implies that the local people understand the concept of sacred forests at a basic level. This obersvation is supported in Chapter 3 (Section 3.5) and the following section which points out that 30 out of 48 interviewees are not able to articulate in detail their understanding of the research question.

7.3. Wide range of definition with a diversity of indicators

When asking for further understanding of the research question, responses are diverse, ranging across ownership, value, and history. Responses depend on a variety of factors relating to the respondents as well as the context of the discussion, and are presented in the following sections. This section however, focuses on presenting a range of responses to the research question when asking for definition. At the end of this section, a more suitable definition of sacred forests in Vietnam is generated.

Socio-cultural aspects: All respondents touched on social, cultural, and spiritual aspects when discussing the definition of sacred forests and this gives a sense that culture plays an important part for them in defining the concept of sacred forests. In talking about this, respondents focus on two main themes, ritual and the power of sacred forests.

a) Super power

Discussions included being scared of sacred forests if they are disturbed by any means, such as collecting firewood, or entering without permission, and many interviewees know at least one relevant legend to tell. Responses often became an unstoppable discussion, providing many legends as evidence. Assessing these legends, sacred forests are "scary" to those who carry out any wrong-doing. Also, sacred forests have power to support local people in many ways. Details of some of these legends are presented in Chapter 9 (Section 9.4). Following are examples of how the informants addressed the question:

> Mr. Hà (*Lùng Sán* village): I would not disturb the forests even if given a mountain of gods or money or such kind of things [*Tôi thà chết, hoặc có cho núi vàng cũng khong giám xâm hại rừng cấm. Đi vào rừng cảm giác cứ lành lạnh, sờ sợ, vì sự âm ung của nó*].
>
> Mr. Sáu (*Lùng Sán* village): We have areas of sacred forests…not anyone can just go there, you …have to find the person responsible, because there are beliefs, there are…bees, snakes, pythons and even there used to be tigers in the forests. These tigers used to be many, but now there aren't any [*Làng có những khu rừng cấm…không ai được phép vào… Nếu muốn vào phải tìm người nào đó thong thạo, được thần lình uy quyền. Người này có thể nói với thần linh. Họ đocj thần linh tin nhiệm và ủy quyền* để thực hiện các nghi lễ của rừng].
>
> Mrs. E Leng (*K'Bay* village): The *Jang* has told us that you must never come close to this forest. No one will ever go beyond the periphery. Untouched by human's influence, the sacred forest stands lonely, and somewhat eerily. Huge trees have given over to the wastes of time, but no one has cleared them. This is un-disturbed forest, and perhaps should remain so [*Thần linh chó biết từ xa xưa là không ai được bén mảng đến rừng cám. Không ai được xâm hại. Nếu làm tổn hại sẽ bị thần linh trừng trị. Anh thấy đó, cây già cội, mục nát…thế mà có ai giám nhặt đâu. Kể cả lâm sản phụ như cây thuốc cũng phải thầy mo mới được phép lấy, và lấy về để chửa bệnh cho dân làng*].
>
> Mr. Lý Seo Chùa at the first case study: We pray to ask Ghosts to support us in many issues, such as providing good comfortable weather for yields, preventing

diseases from animals and villagers etc. [*Chung tôi cầu khẩn rừng thiêng về nhiều điều, như làm cho mùa màng tốt tươi, gia súc tránh được bệnh tật, người dân được khỏe mạnh… Vì thần linh ở trong rừng có khả năng đặc biệt, họ biết hết*].

As seen in the responses, interviewees are tangiblly scared of the power held by some entity or some unseen things in the forests. This power only becomes tangible when they are represented by objects such as old and big trees, or big stones of the forest. This resonates with the concept of *heirophany* indicated in Rennie (2006: 18). The informants described some stories related to the sacredness and scariness mentioned previously that indicate there are punishments or consequences from the sacred because they disturb the forests.

In relation to the first example, Mr. Ha talked about his belief in the sacredness of the forests of his village. To express his belief, he demonstrated how he is scared of the power of the forests and used a "cost-benefit" analysis to indicate his willingness to give up anything of the most worth to him, rather than be forced to disturb the forests. In this regard, he used gold, which is popular and the most valued commodity in Vietnam (Kalman, 2002). Like cultures in other countries (eg. India and China), gold in Vietnam is also religiously considered to be a pure or '*tinh khiet*' metal (Crawford, 2012).

In relation to Mr. Sau's response, there are two aspects that indicate the sacredness of the forests. On the one hand, it is evident in his explanation that the power of the forest is represented by the rule that "not anyone can go there". As he explained, people who want to go into the forest need the support of a "responsible" person such as the village patriarch, or the village head and people who are members of the elder council. In the country generally, village headmen are elected directly by local people, usually for personal qualities such as virtue, trustworthiness, integrity and knowledge, rather than specific electoral promises or platforms (Malarney 1997, Shanks et al., 2003, citing in McElwee, 2006). In Vietnam's ethnic minority communities, the patriarch is a male leader called "*già làng*", who is usually the wealthiest or most powerful member of the council of elders (Kurfürst, 2012). There is also a council of elders called "*hội đồng già làng*" consisting of the heads of each lineage (Minh et al., 2016). Each village consists of one or more lineages, and within each lineage, authority rests with the eldest male member (Nguyen, 2001, citing in Minh et al., 2016).

It is evident by his explanation that forests have power over people because of their wildness. As he explained: “there are…bees, snakes, pythons and even there used to be tigers in the forests”. In this regard, people are conscious of the dangers that this wildlife brings, which the researcher experienced through feelings of “scariness” as he walked into the forest duringthe interview with Mr. Sau (Figure 7b). The forest is dense and creates darkness although it is day time, and the atmosphere in the forest is cold, despite being summer and a sunny day. In addition to these feelings, the sound of the wind, as well as animals mostly birds singing added to the atmosphere.

Figure 7b: Pictures of the sacred forests in the case studies

Source: Photo taken by author on 9th April 2018.

Other indications of sacredness are evident in the response of Mrs. E Leng, a woman in the *K’Bay* village. As discussed above, she pointed out in the interview some very large trees that have given over to the waste of time, but no one has cleared them (Figure 7c). As she explained, people could not do so, because of the belief that the trees represent their ancestors from different clans. In the interview, she also talked about these trees many legends and related them to their ancestors. This indicates the trees are a place where villagers often worship with rituals or ceremonies discussed in a more detail below.

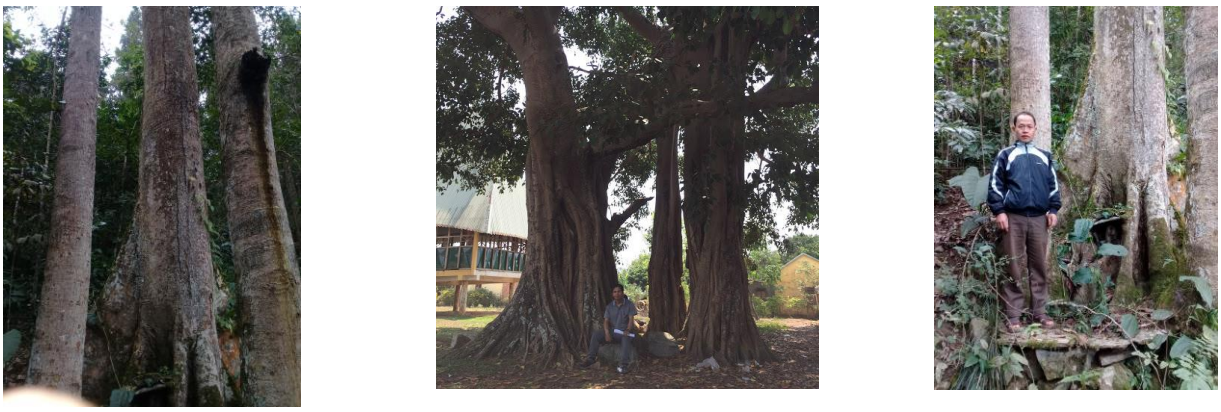


Figure 7c: Pictures of ancient trees in the case studies

Source: Photo taken by author on 9th April 2018.

b. Ritual practice

Informants also talked about rituals or ceremonies relating to sacred forests in and outside of their village. In this regard, most of them are able to name the rituals and ceremonies, although a few are able to tell stories about how the festivals originated. Mostly, the respondents referenced the practice of their beliefs to address the question at first, saying things like "*sacred forest is a forest for* the *practice of …* [*Thật lòng mà nói, làm cái nghề này trong rừng đêm gặp muôn vàn nguy hiểm.…*]*"* – following names such as: "*Nao Long*", or "*Thu Ty*", or "*Nuoc Giot*". As previously discussed, these terms are local and indicate the names of rituals or ceremonies practiced in relation to the sacred forests they talk about. Typical responses to the question are:

> Mr. A Khương (Adult): In *K'Bay* there are ancestral spirits; places to give offerings in …the forest, in caves…some make shrines. In open spaces, others near grave sites. In these places are red and white cloths; some people build a shrine outside [*Ở K'Bay, các thần rừng phù hộ cho người dân rất nhiều. Chúng tôi có những khu để cúng, nơi chúng tôi mang lệ vật tới như dưới tán cây to, hang đá… Nới đó chúng tôi cải tạo cho bằng phẳng đẻ làm khu vực thờ cúng…*].

> Mr. A Leo (Elderly male): I am an elder of *K'Bay*. I am the senior custodian of all the sacred sites of *Bahnar*. I have the main responsibility for these places. The place where we are, is known as *Bahnar*. Strict taboos on harvesting trees and other plants exist. This has meant that, even though the forests are small, in many cases these sites are the only areas where forest remains [*Tôi là thầy mo, được thần rừng ủy quyền để thực hiện các nghi lễ. Nơi khu rừng này của người Bahnar, chúng tôi có thể thu hái lâm sản phụ theo một lượng nhất định. Mục đích là vẫn phải giữ được sự phát triển của rừng, đảm bào nơi thần rừng ở luôn tươi tốt và uy nghiêm*].

Mr. A Leo states activities related to rituals are led by a responsible person, who are often elderly, or senior in many respects, such as understanding customs of the community, respect ("*co´ uy*"). "*Co´ uy*" is a term used to indicate the leadership position in Vietnamese society, especially in ethnic minority villages. Truong & Hallinger (2017) described this as a combination of legitimate and moral authority in order to achieve subordinates' obedience, trust, respect, commitment and emulation.

Ownership

There is a considerable number of respondents (22 %) who talk about ownership when defining the term "sacred forest". Often interpreting sacred forests as "*rung cua ban*" (village forests), or "*rung cua cong dong*" (community forests). In this regard, they mean that the forests belong to the people of the village as common property. This indication of ownership is consistent when property rights are touched on in defining "sacred forest" and "sacred natural sites" in many studies (Ormsby, 2013; Anh, 2010; Oviedo & Jeanrenaud, 2007 cited in Verschuuren, 2010; McIvor, Fincke & Oviedo, 2008; Schelhas & Greenberg, 1996; Chidester & Linenthal, 1995; Andhra Pradesh, nd). A detailed discussion of these references are presented in Chapter 4 (Section 4.2).

Economic dimensions

Only a few respondents, 11% of the total informants indicate that sacred forests are places where people can generate incomes, highlighting collecting fire-wood and non-timber forest products. There are a wide range of responses where people say the benefit of sacred forests is

in what they bring to their farming, such as a good yield, protection from the attack of insects, bringing rain to the farms. Some people talked about collecting materials from the forest for food, including bamboo shoots, and native vegetables. Others talked about collecting fuel-wood from dead trees and branches and leaves.

Generally, this economic aspect brings a new element to the review indicated in Appendix 10 (Chapter 4, Section 4.2). As discussed in this section, the economics of sacred forests are not touched on in any definitions used in identified studies (eg. Ganguli et al., 2016; Shinde et al., 2011); McIvor et al., 2008; Henrie, 1972; Andhra Pradesh, nd; Ormsby, 2013). However, this finding is in line with the claim that the definition of sacredness by local communities has a strong influence on material dependence by those communities (Gokhale & Pala, 2011).

Environmental aspects

There were some respondents who conceptualized sacred forests as environmentally significant, indicating a richness of flora and fauna. From an an analysis of their responses, they have a sense of comparison between sacred forests and non-sacred forests. In this regard, the former is more diverse and details of this environmental difference in sacred forests are discussed in the following chapter (Chapter 9, Section 9.3). Some typical responses:

> Mr. Chùa (the Partriarch of L*ùng Sán* village): The forests are rich in wildlife and often they shelter in caves and wells [*Những khu rừng thiêng rất giàu về loài vật. Đặc biệt chúng ở trong các hang động, như rắn, thậm chí hổ mang chúa…*].
>
> Mr. Dung (an elderly council of *Lùng Sán* village): Sacred forests are ancient community forests that embed cultural values and support many rare and endangered animals and plants [*Rừng thiêng là rừng của tổ tiên để lại. Chung thương gắn với các hoạt động văn hóa của àng bản. Việc hoạt đượng rất có tính cộng đồng…*].

These responses support definitions of sacred forests used in many existing studies presented previously in Chapter 4, Section 4.2 (eg. Ganguli et al., 2016; Shinde et al., 2011; Dudley et al., 2010; McIvor et al., 2008; Soury, 2007; Schelhas & Greenberg, 1996; Henrie, 1972; Andhra Pradesh, nd**)**. As the section exemplified, Ganguli et al (2016) defines sacred forests

as managed wooden patches relevant to biodiversity conservation. More detail about this correlation is presented in Appendix 4a.

Historical dimensions

While addressing the question of how to conceptualize the term "sacred forest", some research participants indicated historicity. This was mostly discussed by participants who are well-educated, including government officials at both central and local levels; and elderly people of the villages. Common terms used in their responses include "founding story", age of sacred forests, "ancient". Some responses are:

> Mr. A Thút (The Patriarch of *K'Bay* village): Sacred forests are part of the founding stories of *Bahnar* villages and represent vital cultural heritage [*Rừng thiêng găn với lịch sử của làng bản của bộ tộc Bahnar chúng tôi. Nó được lwu truyền bao đời nay*].

> Mr. A Khuong (*K'Bay* village): The forests are rich in wildlife and often they shelter caves and wells. In some there is evidence of human occupation dating back 4,000 years [*Rừng thiêng rất giàu về động vật cũng như cây thuốc,,, Nó có lịch sử lâu đời, tôi nghe nói là trên 4,000 năm cơ đấy. Các nhà khoa học về đây nói với tôi thế*].

> Mrs. Lý Seo Chùa (*Lùng Sán* village): Sacred forests are ancient community forests that embed cultural values and support many rare and endangered animals and plants [*Rừng thiêng gắn với lịch sử lang bản, có tổ tiên từ hang nghìn đời. Ngay khi lập quốc, cha ông ta đã giựa vào rừng để che chở. Họ tin có thần rừng bảo vệ để chống quân xâm lược*].

Especially, there are always rich stories told in relation to rituals of sacred forests. Each ritual story covers a range of topics, including history, participation by people, and content. These diverse themes and rich content show that rituals are important in understanding what sacred forests mean. Box 7c below summarizes the history of *Nao Long* and *Thu Ty* rituals of sacred forests of the *H'Mong*.

Box 7c: An example of describing stories related to sacred forest rituals

The '*Nao Long*' ritual is known by different local names including '*Nao Song'*, '*Tong Senh'* and depends on the pronunciation of the *H'Mong* in the particular region. The ritual maintains the unwritten rules and commitments of the Mong living in their specific locations. The '*Nao Long'* along with '*Thu Ti*', another type of traditional ceremony of the *H'Mong*, prays for peace and expresses the love and nurture of nature, as well the role of kinship in the community. Every family has been hitherto considered as the basis for promoting spiritual values into the practices of community governance and natural resources management. In other words, the '*Nao Long*' and other rituals are to protect the security of community life. Commonly, for the *H'Mong*, their life cannot be separated from the community, or the rules and commitments which have evolved through the *'Ăn Lồng'* in the *'Nao Long*' ritual. Nao Long means, eat and promise to do something together. The following story is about the *'Ăn Lồng'* in *Can Ho* commune, *Simacai* district that we attended.

Source: Adapted from CIRUM (2017).

Most informants could not identify exactly the history of their sacred forests, but, when asked they touched on terms that indicate: "*it has been here for many generations, which I do not know*"; "*I do not know, it belonged to our ancestors*"; "*long long….long time ago*"; "*in the France war*"; "*in the war fighting Chinese*" [*Rừng thiêng có ở đây từ bao thế hệ rồi. Tôi không biết chính xác, chỉ biết là rât lâu rồi. Ví dụ thời chiến tranh với bọn tạu, rừng thiêng che chở đanh lùi quân địch bao phen*]. This is consistent with Nkwi (2017), who says that sacred forests have long been in existence in ancient Rome, Greece, and most of Asia and Africa. Earlier discussions in Chapter 5 (Section 5.2) indicate that sacred forests have a very long history and may date back to the time that human socieites were in a primitive stage of development. Similarly, Acharya & Shrivastava (2008) indicate that sacred natural sites may be in a settled or given locality/region although people exhibit a *nomadic* lifestyle across a large territory, but sacred sites are generally historically associated with a specific territory on which people depend.

Summary

In this section, the concept of sacred forests is under the lense of local Vietnamese people and shows that there are diverse characteristics, including ownership, value, history. Especially, multi-dimensional values are key for local people defining what the term “sacred forest” means. This finding challenges definitions of sacred forests used in or proposed by existing studies. As discussed, the definitions used in, or proposed by existing studies, only highlights multi-dimensional valueswhen conceptualizing the term sacred natural site or forest. The wide range of responses is consistent with definitions of sacred forests reflected in existing literature for a couple of reasons. For the most, it proves the claim that sacred natural sites and forests are diverse human concepts (Verschuuren, 2010), also the number of descriptions listed by Appendix 10 indicates a diversity of how sacred natural sites and forests are defined.

In relation to multi-dimensional values, this seems to be in line with Gokhale & Pala (2011) who claim that the definition of sacredness by local people is strongly influenced by material dependence on these sites. Specifically, sacred forests contribute to local communities in many aspects, including: livelihood generation, environment protection, and cultural conservation. Although this finding to some degree does not support definitions of sacred forests used in or proposed by existing studies, it does reasonate with many empirical studies proving multiple-dimensions of sacred forests (as dicussed in more detail in chapter 4).

Among the multiple-dimensions, culture dominates in the responses of local people. This is inline with definitions of sacred forests used in or proposed by existing studies (Appendix 10). Also, this dominance is indicated in Figure 7a above by red arrows, which shows the connections of cultural aspects to other elements in the figure.

7.4. Influencing factors

Change over time

The sacredness of these forests has changed over time along with attitudes of local communities. In this field study, it is evident from an interviewee that people in his village used to completely believe in the sacredness of their forests. He said, it seems that there was not anyone who did not believe in the power of sacred forests. He showed his sadness while

talking about the belief of people in the village, because many people no longer believe in the consequences of a break in the customary management of the sacred forests. In this regard, the interviewee made a comparison:

> Mr. Lương Văn Thịnh (Adult): … the forest used to be more spiritual [*...Rừng ngày xủa thiêng hơn…Dân bản bây giờ ít tin hơn. Có lẽ vì bị phá mất nhiều nên thần linh không phù hộ nữa*].
>
> Mr. Sáu (*Lùng Sán* village): there are beliefs, there are…bees, snakes, pythons and even there used to be tigers in the forests. These tigers were used to a lot, but now there aren't any [*Trong rừng có nhiều rắn độc, thậm chí ngày xưa còn có hổ, báo… Bây giờ ít vì rừng bị thu hẹp lại. Với lại con người săn bắt cũng nhiều lên*].

The interviewee further explained that the change in the perception of sacredness is a result of modernity.

> Mr. Dìn (Adault): There are many people who build their houses near to the forests, which create noises and disturbance. This makes the ghosts of the forest unhappy and not willing to fully support their people [*Cũng có một số người xây nhà gần khu rừng cấm. Việc này cũng ảnh hưởng đến thần rừng như sự ồn áo, ô uế do các công trình vệ sinh… Nhưng để làm gần rừng, họ phải xin than flinh nhiều lắm*].

This change of attitude towards the sacredness of forests is critical. It not only indicates change, but it is the driving forces of the change, which has consequences for forests and cultural conservation. As shown in a study in India, change in people's attitudes and socio-cultural practices are the main reason for degradation of biodiversity and sacred groves, among many others: habitat degradation, encroachment, exploitations of resources, forest fragmentation, erosion of religious belief and traditional value etc. (Mondal et al., 2015). In relation to driving forces of sacred forest degradation, this chapter reviewed and identified 8 general reasons (Table 7c).

Table 7b: List of driving forces threaten and challenged development of sacred forest

No	*Driving force*	*Reference*
1	erosion of traditional religions and the arrival of new ones	Decher (1997); Wadley & Colfer (2004); Byers et al (2001) (cited in Soury, 2007); Shepheard-Walwyn (2014); Umazi et al (2013); Dudley et al (2010); Mondal et al (2015); Verschuuren & Furuta (2016)
2	erosion of traditional religious knowledge and interest among the young generation	Wadley & Colfer (2004); Byers et al (2001) (cited in Soury, 2007)
3	Immigrants have much less links with the sacred forests and do not necessarily respect the traditions	Byers et al (2001) (cited in Soury, 2007); Castelli (2018); Cochard et al (2016); Zhang et al (2006)
4	due to population explosions and various developmental activities, forests are destroyed	Khumbongmayum et al (2004); Kokou (2006); Byers et al (2001) (cited in Soury, 2007)
5	Political aspects: new national forest policies; land conflict among local communities; the laws have trouble clarifying land property rights	Chandrakanth et al (2004); Kokou (2006) (cited in Soury, 2007)
6	introduction and the proliferation of exotic conquering species	Kokou (2006); Khumbongmayum et al (2004) (cited in Soury, 2007); Verschuuren (2010)
7	Small in size and isolated in distribution	Discussed in Chapter 5 (Section 5.3)

8	Poverty	Oyelowo et al (2014); Kent & Ramanujam (2007)

Source: Adapting from existing studies indicated above.

Demographics of local people are matter

As indicated in Chapter 3 (Section 3.3), among the total interviewees who are males, only 58.3% were able to have full in depth discussions about sacred forests on all three main questions of this research. In this regard, 37.5% of the total interviewees belong to the first group, engaged in long discussions of more than 2 hours. The rest of the interviewees had shorter discussions of about 5 to 30 minutes each, although the researcher put much effort in to facilitating these discussions. The ability of the interviewees to respond to the research questions is heavily influenced by demographic issues of age, gender, educational level, economic condition, marriage, and social status. This chapter discusses the inflencues of some of these issues in relation to the first research question.

Generally, 100% of the toal interviewees are familiar with the term sacred forests, and are aware of the eixtsence of sacred forests in their village and sacred forests belonging to villages nearby. In other words, there are no significant differences in demographics and answers about the existence of sacred forests, relevant customary rules, the enforcer of rules, or whether the respondents knew the rules.

The level of incompleteness of responses differs between individuals in regard to their demographic characteristics. Similarly, these demographic characteristics together with issues related to religion and culture of the communities, impact on the belief in sacredness of the forests. While giving definitions of sacred forests, informants often talked about their belief in spirituality of the forests. One typical example of such a response is:

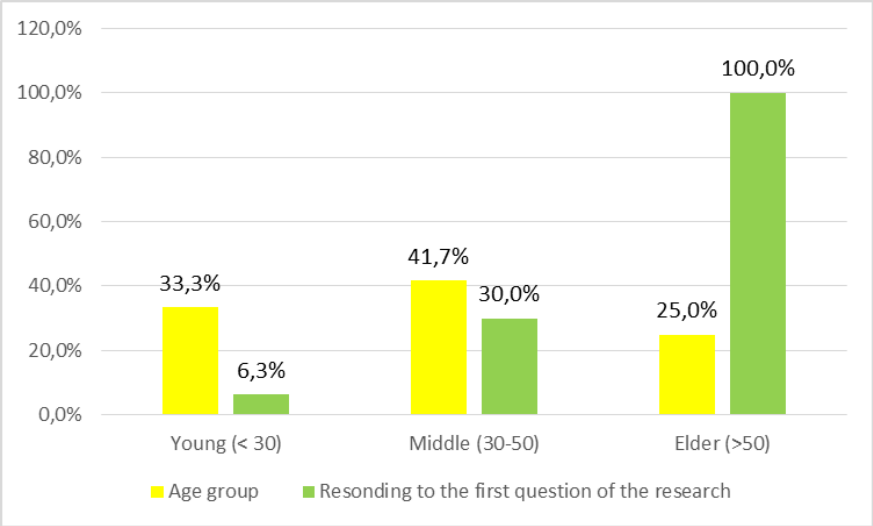
> Mr. Chùa (The patriarch of *Lung San* village): I am the custodian of the site called "*Khuma*"; I inherited this responsibility from my parents, my father *Sung Seo Lin*; he used to help people. I assist people with their problems at the cave known as "*Khuma*". The meaning of "*Khuma*" - a place where you can bring all your problems…and they will be solved. Once a person has been cured, there is a

fee…you can bring honey, you can bring incense, you can bring a goat, a cow…soda, cononut milk, dates or you can bring "*Bohu*" (sweetmeat) [*Rừng Khuma là khu đặc biệt. Đây có nghĩa là khởi nguồn, đầu nguồn nước, nguồn của các laoif vật. Tôi được thần linh ủy quyền trông coi, cũng như giúp người dân để vào xin thần rừng khi ốm đau bệnh tật, haymaats mát gì. Cho cả làng, những dịp như vụ lúa, tôi giúp dân làng làm lễ thờ cũng xin thần rừng. Tôi được truyền từ các ong bà đời trước như vậy. Tôi phải theo học từ rất lâu rồi giờ mới thành thạo được như thế này*].

Also, across communities there are those who do not believe in existing sacredness. In the field study, the two communities studied believe in the existence of sacred forests, however, cross-checking interviews also shows that some interviewees/communities excluded from this research are those who don't believe in the existence of the sacredness of forests, eg. the *Kinh* people, the majority group in Vietnam.

The concept of sacred forests is better defined by the elderly when compared with the younger respondents. In relation to the ability to provide answers to the first research question, 100% of people aged over 50 years responded to the question with rich content (Figure 7d). This rate goes down to 30% and 6.3% respectively with the groups aged between 50 and 30 and below 30 years old. In the figure, the yellow reflects age groups of the sample, and is described in detail in Chapter 3 (Section 3.3).

Figure 7d: Ability of interviewees responding to the first research question, grouped by age



This is in line with other studies. For example, Allendorf et al (2014) provides a similar comparion, but with different age cohorts. This study concludes older people were more likely to know the meaning of forest names, especially those over 70 years; the older a person is, the more likely they are to know the creation stories related to the sacred forests; a few respondents under 70 years said they knew the complete creation story, and no one under the age of 40 said they knew the story even a little (Allendorf et al,. 2014). There are other examples, to support this including Mondal et al (2015), Campbell (2005), and Byers et al (2001).

When asking the younger generations further to understand "why", their understanding decreases considerably, and a wide range of issues becomes evident. In other words, there is a dynamic force that influences younger generations to know less about sacred forests. This may be that for the most, participation in activities related to sacred forests is limited to a group of elderly and more responsible people, such as the village heads and being excluded they are less interested. There is more detail on this in the following chapter (Chapter 8, Section 8.2). Further, younger generations tend to favour the forests in terms of economic means, such as cutting big trees for timber. Also, younger generations tend to doubt the sacredness of the forests as they question old ideas through their scientific knowledge. A detail of these driving forces emerge in some of the responses below:

> Mr. Hà (Young Adult): This belief is lost. Why? Because people are educated. They say, "Nothing happens, I've tried." They experiment actually. Some educated people test if indeed God can curse them. They cut and claim no bad omens. And from one to the other the message spreads. Thus the forests get cut [*Những người học được lên cao thì họ có vẻ không tin chuyện thần rừng lắm. Có thể ở trường học họ dạy vậy. Tôi không biết. Chỉ thấy là họ ít tham gia lễ hơn, lói sống tự do hơn. Toi cũng thấy họ không chăm sóc sức khỏe, ốm đau hay đi bác sỹ*].

> Mr. Chùa (The patriarch of *Lùng Sán* village): I am Ly Seo Chua, an elder of this village. I am the senior custodian of all the sacred sites of *Lung Sui* commune. I have the main responsibility for these places. The place where we are known as *Khi khấn tôi lường nói tên mình, Lý Soe Chùa, được ủy quyên xin thần linh….Tùy*

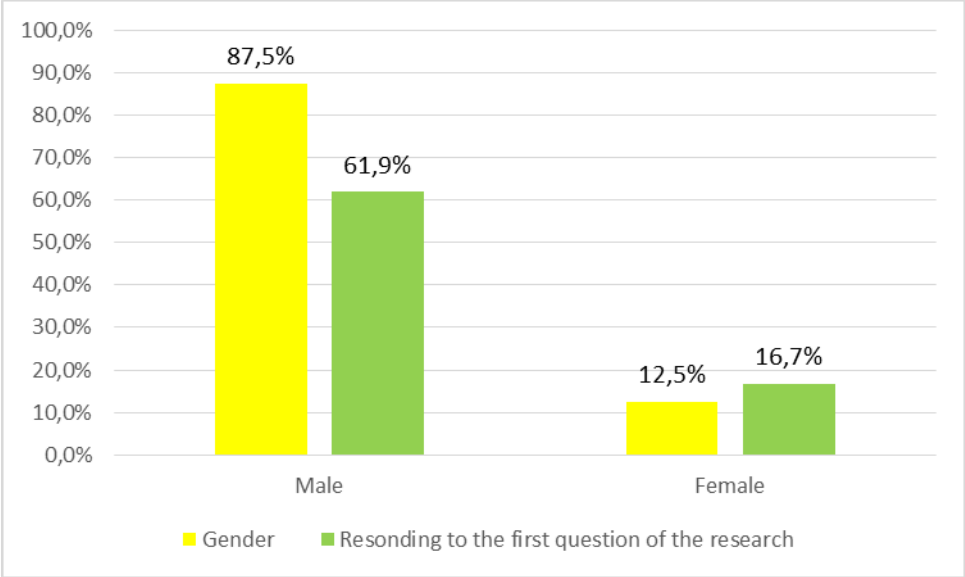
dịp, làm lễ cho cấp huyện về thăm, thường ngày thì cấp làng bản khi người dân đến xin gì ở thần rừng thì tôi giúp để nói với thần rừng. Vì lễ rất phức tạp, có nguyên tắc của nó].

Mr. Sáu (Elderly): …Nowadays the young people don't respect the existing traditions. They have cut the big old trees and replanted with modern timber species. There is a loss. When you bring visitors, the place is not easy to recognise. The large trees are one way to recognise the sacred forests …..[*Người trẻ bây giờ ít tin vào thần rừng hơn. Họ hay đi xa, nên cũng biết ít về phong tục. Khi về dịp lễ tết, họ sinh hoạt cũng kiểu người hiện đại. Nói chung là họ mai một về truyền thống rất nhiều. Tôi rất lo, cũng buồn. Nhưng quy luật mà, họ đi kiếm được nhiều tiền, nên họ song kiểu đó*].

Mr. Cư Xao Mình (Young adult): Since small, I've been sent by the old people to Kivuli. I prepare offerings or If a person has a problem, then I deal with it. I was taught by the old people in the beginning and I continue until today. However, we are sad to see that our young people no longer respect …past history and conservation of our sacred forests…[*Khi còn nhỏ, mình hày vào rừng với bố mình. Thấy bố cứ lâm rnhaamr cúng gì đó rồi mới hái rau hái măng… Đi xa lắm, có những khu đi cả ngày mới đến. Bây giờ rừng thiêng chỉ lác đác vài cái gần thôn bản thôi. Nhà nước quay vùng thành nới khai thác vàng…. Ní chung là bây giờ không có rừng mà đi vào nhiều như ngày xưa nứa*].

Female interviewees knew little about sacred forests, although discussion in the following Chapter 8, Section 8.2, shows that their daily activities are related to these places, including firewood collection. As shown in Figure 7e, only 12,5% of the sample are females. Among these females, only 16,7% are able to answerer the first research question with many rich content. By contrast, compared to male interviewees this is respectively 87,5% and 61,9%. Male dominated knowledge is consistent with other studies, for example, Mondal et al's (2015) study shows that 44% of male interviewees know the term sacred forests, while it is only 32% for females.

Figure 7e: Ability of interviewees responding to the first research question, grouped by gender



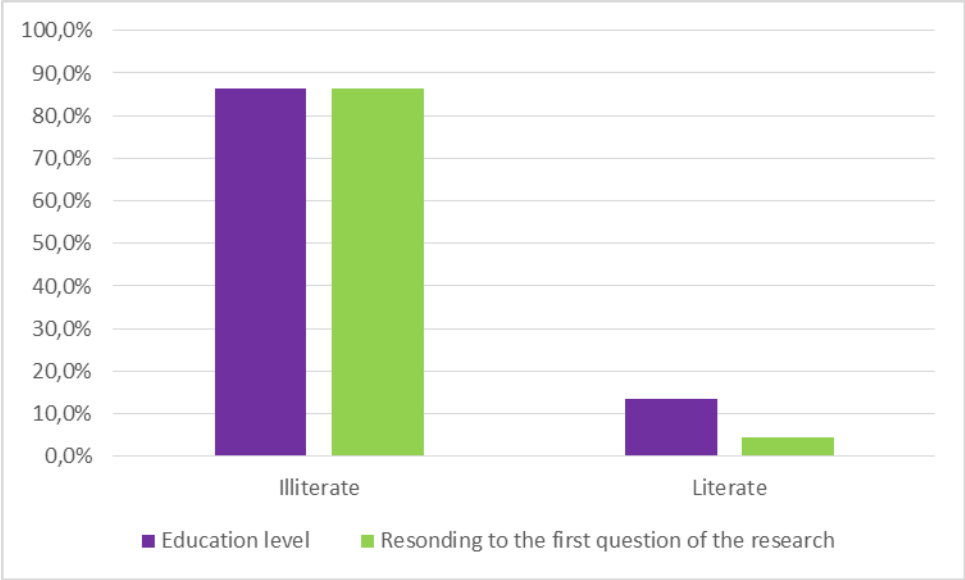
According to responses of interviewees, the inequality of understanding sacred forests is a result of a patriarchal society, and that males are socially involved more than females in relation to activities of the village. For example, responses below show that males have more advanatges than females in a family, and husbands are responsible for making decisions. Similarly, son's inherit the decision making power when fathers die, or are not able to continue their responsibilities.

> Mr. Dìn (Adult): the traditions continued. Amongst the custodian families, the father is responsible and when he …is not able any more he finds a son who will inherit the responsibilities... he guides them; the children follow and…women cook food that will be eaten at the ancestral site [*Cũng rất đáng lo ngại khi kinh phí cúng rừng giờ người dân cũng hạn hẹp do kinh tế khó khăn. Ngày xưa họ thu nhập ở các khu rừng khác. Bây giờ rừng đó bị nhà nước thu hồi hết rồi… Mong nhà nước cấp đảm bảo cho dân đủ đất rừng để sinh sống*].

Mrs. A Sung (Young adult): … I don't know if it is because I am…a women, or they think I am less-educated, but people no longer respect their elders. My problem is that our children no longer cooperate. They don't want to cooperate with the traditions at all [*Ta không biết mô, vì ta à phụ nữa. Ta không được tham gia cúng rừng. Nhưng ở nhà khi chông fbaor đi giúp thì ta đi phụ trợ. Họ không cho phụ nữ tham gia nhiều mô. Ta chỉ biết sơ sơ qua chồng ta thôi*].

In relation to general education, perceptions about sacred forests decrease with the increase in education of respondents (Figure 7f). In relation to knowledge about healthcare, some respondents indicate that people tend to believe less in sacredness of forests if they have been in hospital. In other aspects of education, some respondents gave examples about people who challenge the spirits of sacred forests without consequences.

Figure 7f: Ability of interviewees responding to the first research question, grouped by education level



Mr. Sùng Seo Xử (Elder): Yes there are negative impacts that we are experiencing. When someone is not cured at the hospital and they don't want to visit…the sacred sites (for healing) then this is a great shame [*Rừng thiêng quan*

trọng chứ. Nếu ái vi phạm là bị xử phạt đó. Ta cũng hay bảo thế với các con ta. Từ nhỏ ta được cha mẹ bảo về các vị thần trong rừng. Họ biết hết đó].

Mr. Hà (Young Adault): Can't say the people have lost faith in God. As they want temples. But the forests aren't important anymore. The old people believed God would punish if they violate the forest. This belief is lost. Why? Because people are educated. They say, "Nothing happens, I've tried." They experiment actually. Some educated people test if indeed God can curse. They cut and claim no bad omen. And from one to the other the message spreads. Thus the forests get cut. The most important thing is… Specific ethno-botanical knowledge that particular communities used to have no more passes on to next generations. Most older people are dead, their knowledge has ceased with them. Fortunately we had interviewed some, their children don't know anything [*Ta không giam chắc là mọi người kông tin vò thần rừng. Vì ta tháy rừng như những ngôi chùa để thờ cúng, và mọi người vẫn vào để cúng. Có thể có những người họ học khoa học, họ sẽ suy nghĩ khác. Nhưng đa số vẫn theo thần, vẫn cũng hang năm. Đôi người họ báo hộ thử vào rừng mà không bị gì cả. Họ chắc chỉ thử vào vài lần thôi. Chứ nhiều chắc sẽ gặp nguy hiểm, thần trừng phạt*].

Summary

Generally, in line with a number of papers, this section confirms that although personal differences exist, there is general agreement as to what types and individual places are sacred (Mondal et al., 2015; Henrie (1972). In this regard, the study would be more significant if following Henrie (1972), there is an examination of trends in degree and that kind exist among subgroups independent of groups variables eg age. Specifically, the finding resembles many other studies exploring relationships between attitude and characters of locals toward sacred forests and customary natural resources (Kushalappa & Raghavendra, 2012; Yogyakarta et al., nd; Grob, 1995; Umazi, Iwa & Etim, 2013); Kent & Ramanujam, 2007); Balram & Dragićević, 2005).

This is significant in regard to future studies and modeling people's perceptions, decisions, and behavior regarding environmental problems and other issues. These studies often use the

Social Cognitive Theory proposed by Kearney & Kaplan (1997) where 3 variables are considered: behavioral factors; environmental factors (extrinsic); personal factors (intrinsic). Using this model may aid understanding how people perceive problems, and may determine how information may be most effectively shared in designing strategies for behavior change.

7.6. Conclusion

As shown in Section 7.2, names of sacred forests are often mentioned first when research informants are asked the question "what does the term sacred forest mean". In this regard, sacred forests are publicly and locally referred to by many names. This reflects existing studies, proving that sacred natural sites and forests are named differently by different religious groups (eg. Dudley et al., 2010; Schelhas & Greenberg, 1996). This shows that local people are most familiar with sacred forests through names before interpreting what these places mean to them. In this regard, diversity of sacred forests can be categorized by their names if they are listed, which is possible and is discussed in more detail in the following Chapter 8, Section 8.5.

This chapter shows that concepts of sacred forest under the lense of local people is diverse with many characteristics, including ownership, value, and history. Especially, multi-dimensional values are key for local people when defining what the term "sacred forest" means. This challenges definitions of sacred forests used in or proposed by other studies. As mentioned in Chapter 4, the definitions used in, or proposed by existing studies only highlight multi-dimensional values, while conceptualizing the term related to sacred natural sites and forests. The wide range of responses to defining sacred forests is consistent with the definitions of sacred forests reflected in existing literature for a couple of reasons. For the most, it proves the claim that sacred natural sites and forests are diverse human concepts (Verschuuren, 2010). In addition to this, the number of descriptions listed by Appendix 4a, indicates a diversity of how sacred natural sites and forests are defined.

Among multiple-dimensions, culture dominates the responses of local people in defining sacred forests. This mirrors definitions of sacred forests used in or proposed by existing studiesindicated in Appendix 4a showing that cultural dimensions are a key indication. This dominance is visually indicated by Figure 7a through red arrows, indicating connections of

cultural aspects to other elements in the figure. As such, the finding is synthesized to propose a definition of sacred forest, which is:

> Sacred forest are small wooded areas with high biodiversity, and belong to fixed communities. They have holistic significance to those communities in regard to livelihood, environmental protection, spiritual beliefs and culture. The religious dimension honors a deity, provides sanctuary for spirits, reminds present generations of ancestors, and the access and management is regulated by traditional powers.

This chapter shows that only a few local people were able to fully define what the term "sacred forest" means and reveals the importance of the elderly in maintaining the continuity of group practices and culture. This also reflects existing studies that indicate it is challenging to define the term "sacred forest" (eg. Muli, 2016; McIvor, Fincke & Oviedo, 2008). Therefore, it suggests that, to develop this concept, researchers should not rely on only a single respondent or a homogenous group of respondents. Instead, it requires a substantial synthesis based on data from rigorous qualitative studies with respondents from different demographic and cultural groups.

Chapter 8

New dimensions understanding diversity of sacred forests

8.1. Introduction

This chapter discusses the diversity of sacred forests highlighted in the two village case studies. Generally, research of Vietnam's sacred forests shows them to be diverse due to their utilization, ownership, culture, name tag and geographical distribution. In this regard, different cultural practices between communities are the main drivers making up the diversity of sacred forests.

Some of these perspectives are in line with the categorizations proposed by existing studies. As shown in the Figure 8a, the two categorizations are indicated by arrows, shapes and texts accordingly. The direction of arrows represents connections between elements. The red colour of the arrows indicates that relevant elements are connected by "cultural and spiritual" element. Dashed arrows (- - -) are used to differentiate between the two categorization perspectives and where the arrows originated. Colour of shapes are used to differentiate elements.

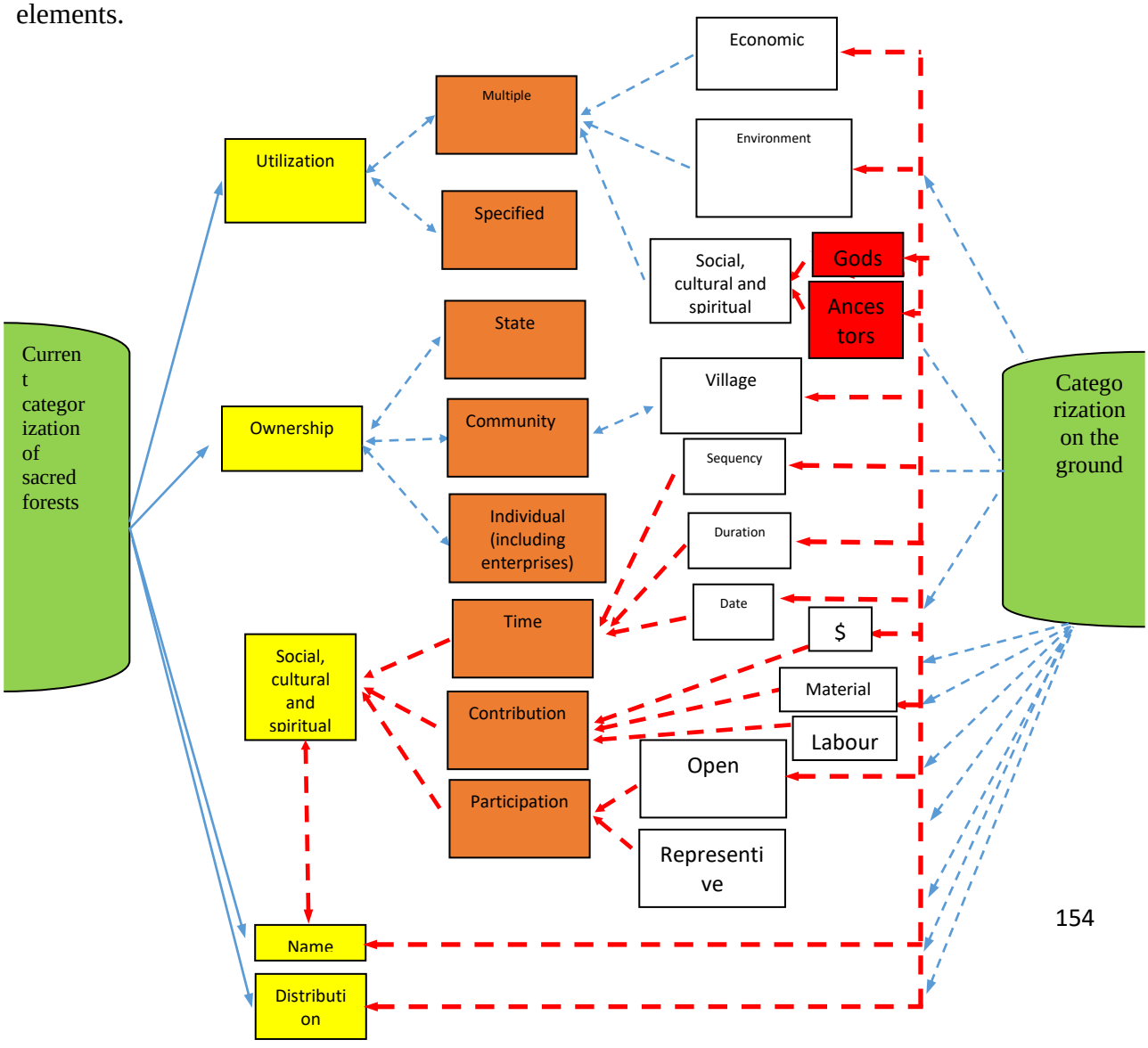


Figure 8a: Sacred forests categorized by both existing studies and responses of research participants in Vietnam.

Examination of Figure 8a shows cultural perspectives, which is absent in categorizations proposed in existing studies. Details about the categorizations used by existing studies is discussed in Chapter 4. A cultural perspective is special because it formulates categorizations based on the other perspectives such as utilization, ownership, names and geographical distribution and these connections are indicated in Figure 8a by the red arrows.

Figure 8a also links comparisons between the two categorizations. While categorizations shown by field research are diverse with many sub-elements, that of existing studies is less diverse with fewer sub-elements. This conflicting indication is evident by the direction of the arrows, in that few arrows are directed towards the latter. For example, the figure indicates that the latter does not categorize diversity of sacred forests based on economic and environmental perspectives, although it does in terms of utilization by categorizing the resources into single and multiple groups.

8.2. Ritual, Gods, worship, and what mean

Vietnam's sacred forests are diverse due to the content of local relgions and rituals, including gods believed to be in the forests, reasons for worshiping, and what worshiping means. This information is summarized in Table 8a below. The table shows there are sacred forests where there is only one god (the *Thu Ty* and the *Nuoc Giot* sacred forests), whereas the *Nao Long* sacred forest is believed to have many gods. The activity of praying in rituals in sacred forests shows the content to be diverse, including a wide range of intentions. The table also shows that in the *Thu Ty* ritual for example, people pray for peace and express the love and nurture of nature, as well the role of kinship in the community. The rituals related to *Nao Long* sacred forest have different intentions in relation to the content of prayers in these rituals.

Table 8a: Significance of sacred rituals

Praying indicator	***Sacred forests***		
	Nao Long	*Thy Ty*	*Nuoc Giot*
Objects	Big trees, stone	Big trees, stone	Big trees, stone
Gods	Gods like *MNoong*, *Pinua*…	*E Mo*	The God *'Yàng Đak'*, a God who looks after water resources
Objective	The ritual on the 1st of January in Lunar calendar is to worship the Spirits to protect villagers, assets, animals, forests, etc. The ritual on the 2nd of February in Lunar calendar is to worship the Spirits toprotect crops, farms from natural disasters, insects and diseases	In this ritual, people pray for the peace and express the love and nurture to nature, as well the role of kinship in the community	sacrifice animals in the sacred forest to bring rain

Source: Field notes, 2018.

Big trees and stones are often selected as shrines ("sacred altars"). When a big tree is selected, the foot of this tree is structured into the altar (Figure 8b) with massive stones collected and assembled for the purpose. The altar then becomes the focus of these rituals. This recognition of the spiritual nature of certain trees is reflected in the concept of *heirophany* proposed by Rennie (2006: 18), indicating that by manifesting the sacred, any object becomes something

else. As followed are responses indicating how people use these “sacred altars” for praying and worship:

> Mr. A Khuong (Elder): That one is the one where I mean you can find big big trees. Which are more than 800 years old we can call that part *Mire*.This is the actually, that one is where we do this ritual and all. This is the middle portion this one here. We call *Boru*, it is where this is. This middle portion is the biggest portion here in this forest actually is cover about six square kilometres of the total area of this forest [*Anh nhìn cây nghiến đằng kia, rất là to. Nghe cac nhà kha học đến nghiên cứu và xác định khoảng 800 tuổi đấy. Họ gọi cây này theo tên thần linh là Mire. Đó cũng là nơi chúng tôi tiến hành nghi lễ cúng rừng hằng năm. Cái phần để cúng chúng tôi gọi là Boru. Diện tích khu vực cúng rừng khoảng 6 mét vuông, đủ để cả phần sau nghi lễ, dân làng tụ tập uống rượu cần và múa hát*].
>
> Mr. Din (Adult): Like this stone, we use it for many different purposes you use this stone for ritual, prayer, place, boundary, road marks, foundation stone. Likewise, but this one is a ritual stone [*Như những viên đá này chẳng hạn, chúng tôi dùng cho nhiều mục đích như lễ họi, cầu nguyện, đánh dấu ranh giuois, chỉ dẫn đường. Nhưng có loại cho làm bàn thờ lễ cúng rừng riêng*].
>
> Mr. Hong (Adult): There is one common thing about all the sacred forests in the state besides the already known fact of “don’t take anything from the forest”. That common thing is the existence of the “sacred altars”. Every sacred forest has them, some in the form of monoliths, others in the form of altars, covered on all sides by massive stones leaving a tiny space meant for thanksgiving [*Có những cách hiểu chung về đằng sau dòng chữ ở bản thờ thần rưng thương ghi, “đừng màn theo thứ gì ra hỏi rừng”. Những chữ này thường ở trê phiến bán thờ. Gần như mọi khu rừng thiêng có chúng, đôi lúc người tag hi ở nơi khác gần đó. Đó là những nơi để diễn ra thờ cúng, nhiều người có thể nhìn thấy giễ dàng*].

Figure 8b: Picutres indicate how "sacred altars" are built

Source: Photo taken by author on 9th April 2018.

Consistent with other studies, objects of worship vary from one sacred forest to another (Oyelowo et al., 2014; Behera & Pradhan, 2015; Kquofi & Glover, 2015). Oyelowo et al. (2014) indicates that trees and statues are objects of worships and inspiration in *Igbo-Olodumare*, a sacred forest in their study. The river is an object of worship in another sacred forest, *Igbo-Gbopo*. In Behera & Pradhan, 2015), specific tree species are worshiped, such as sal (*Shorea robusta*) and rohini (*Somida febrifusa*).

The intentions of prayers vary from one ritual to another. For example, the table shows the two rituals in the *Nao Long* sacred forest have different intentions. The ritual on the 1st of January of the Lunar Calendar is to worship the spirits to protect villagers, assets, animals, and forests. The ritual on the 2nd of February in the Lunar Calendar is to worship the Spirits to protect crops, and farms from natural disasters, insects and diseases. Some typical examples of such responses:

> Mr. Dung (Elderly): People pray here to seek comfort. It's their faith. They find solace here [*Người dân làng và cũng rừng để câu an, cầu sự bình yên. Họ tìm thấy sự thanh tịnh và được giải phóng tâm hồn ở nơi đây*].

> Mrs. Sen (Member of Village Women Union): I took leaves for fodder. The priest's son too took some. He had a bad fall. Since I too took leaves….my cattle got worms. Such impediments do come…if we use anything from here. We have experienced it. Once we fetched some herbs from here. That day my cow fell prey to a tiger. Such things happen. What more do I say [*Ta nhặt lá cho thức ăn gia súc. Các thầy cũng cũng làm điều tương tự cho gia đình họ. Nhưng họ không co làm sao. Riêng ta, đàn gia úc bị ốm. Ta và mọt số người trải qua điều tương tự, trong khi một số thì không. Chắc thần rừng đã quyết định ai được và ai không lien quan đến sử dụng sản phảm của rừng. Hoặc cần phải tuân thủ nghi lễ gì đó. Ta phải theo lời già làng*].

In line with other studies, findings show that intentions of worship are diverse, but reflect the many benefits that nature provides to humans, enviormentally, economically, and culturally. Enviromentally, the intent of worship in rituals in sacred forests ask the gods and ancestors to protect forests, farms, and health of villagers (Oyelowo et al., 2014; Behera & Pradhan, 2015; Kquofi & Glover, 2015). The environmental significance of worshipping includes asking for rain and water for farm irrigation (Sarfo-Mensah et al., 2010; Byers et al., 2001). Econmically, sacred forest areas are used to celebrate good harvests (Behera & Pradhan, 2015), and enviormental protection in order to give the supplicants food (Kquofi & Glover, 2015). Culturally, people pray in sacred forests for comfort, and satisfying their faith obligations (Oyelowo et al., 2014).

8.3. Temporlity

According to Gerden and Mtallo (1990) cited in Schelhas & Greenberg (1996), initiation rites along with other rituals often take place in sacred forests for extended periods of time. This time dimension varies between the three sacred forests in this research. Analysing information from research participants, this discussion presents three patterns: sequence, data, duration (summarized in Table 8a below).

Table 8b: Time dimension of sacred rituals

Time indicator	***Sacred forests***		
	Nao Long	*Thy Ty*	*Nuoc Giot*
Sequency	Twice a year	One time a year	One time a year
Date	The 1st of January and the 2nd of February in Lunar calendar	First or second week of June	Before rainy season (November) or their calendar: January or February
Duration	3 days	One day	3 days

Source: Field notes, 2018.

Shown in the table, festivals related to sacred forests are conducted a few times a year, and the number of rituals conducted annually is different for each ritual and community. It may also be different within a community and with different sacred forests. The field studies show the *Nao Long* is conducted twice a year, while the *Thu Ty* and *Nuoc Giot* are conducted once a year. Some responses in the field discuss these times:

> Mr. Sung Seo Minh (Young Adult): We worship God *Nao Long* twice a year. We don't fear that our cattle will be harmed by the leopards in the forest. We feel protected. If we suffer a loss. She also protects our crops from wild animals. When we harvest paddies, we offer it to her first so that she may bless us [*Chúng tôi cũng Nào Lồng một năm vài lần. Cúng rừng xong, chúng tôi không sợ gia súc bị ốm hoặc bị thú rừng bắt. Chúng tôi cảm thấy được bảo vệ. Nếu chúng tôi bị mắt vài con hăy có gia súc bị ốm, chúng tôi vẫn tin thần rừng đã bảo vệ nhất định. Thần rừng cũng bảo vệ mùa màng, ngăn hại phá hoại của thú rừng. Vì thế, mỗi vụ chúng tôi đều cúng thần rừng những sản phẩm đó, để báo ơn*].

> Mr. Din (Head of *Lung San* village): … because this sacred forest is much more important than the other sacred forests of *H'Mong* people in other villages. It is the big one, which is supported by a higher level of government authorization [*…Vì khu rừng thiêng này quan trọng hơn nhiều so với những khu rừng thiêng khác của người H'Mong. Đây là lễ hội lớn về Nào Lồng, vì thế nên các cấp chính quyền tham gia chủ trì khi làm lễ*].

The time of ritual practice is different between types of ritual and culture of communities. As discussed, *Nao Long* ritual is practiced twice a year, which is at the beginning of January and the 2nd of February in the lunar calendar. The *Nước Giọt* ritual is flexible and carried out depending on the context of annual farming yields. Also, some participants in another ritual of sacred forests of the *Hà Nhì* ethnic group, said *Hà Nhì* community conducted their sacred ritual the "*Khu già già*" in the first or the second weeks of June. Making the decision on which day to carry out ritual depends on the daily life of villagers. As an example, in the second case study, the *Bahnar people* often conduct the ritual before rainy season, when their farming yields have been harvested. This time is often January or February according to their calendar, or November according to the *Kinh* calendar (lunar calendar).

Sacred rituals are often formally conducted and finished within a day. It however takes more time with preparation activities, such as organizing before the day, activities regulated after the day, and "parties" or "festivals" just after the formal part of the day. Also, there are exceptions, for example, the "*Nước Giọt*" is formally carried out over three days (Table 8b - above).

In preparation for cultural activities, there are preparations, such as fundraising, preparing materials, preparing for being in the forest, invitations and information for participation. For fundraising, there is a detailed discussion in the following section, an example, this discussion talks about what people do in preparing for the forest:

> Mr. Ly Seo Chua (Patriarch of *Lung San* village): cleaning job and making space where the ritual is conducted. The "cleaning job" basically includes making the forest clean, removing waste. Products (mostly fuelwood) are equally shared to each family (eg. one bundle per family) [*Làm vệ sinh rừng, chuẩn bị khu làm lễ*

rất quan trọng. Công việc này chủ yếu quiets rác, phát quang cây bụi, càn lại mặt bằng. Sản phẩm từ củi khô của phát quan trong rừng được chia sẻ đều choi người tham gia].

After the *Thu Ty* worshipping ceremony, a spiritual leader will forecast the number of days that the village community should not interfere in the forest to "*leave it to rest safely*" by looking at a chicken's legs. The number of holes in the bones of a chicken's leg is equal to the number of days the forest must be left alone. During those days, villagers are completely prohibited from touching the land and forest, ploughing, producing, clearing land or collecting fresh leaves. The spiritual forests considered to be forbidden by the community are strictly protected, even collecting firewood is not allowed, because they serve as a sacred space for spiritual and religious practices and protect the water source for the community.

Mrs. Lin Thi Sen (Adult): We attend the meetings and assemblies related to forest management. We send our children when we are busy. In assembly, issues are discussed like how to protect the forest, how and when to distribute forest products. We are getting a benefit from the forest. We get grasses for two months in a year and some firewood. We know all the committee members and discuss with them. We also participate in programmes like drama organized by forest user group committee. We feel that we are being included in social activities in our village [*Chúng tôi tham gia các cuộc ghặp về lễ cúng rừng, cùng hội đồng làng. Khi bận việc, chúng tôi sắp xếp các con lớn trong gia đình tham gia. Những cuộc họp như thế mọi vấn đề được thảo luận – như là làm sao để bảo vệ rừng, việc phân hia các sản phẩm rừng như thế nào. Vì thế chúng tôi được hưởng lợi gì từ rừng. Chúng tôi thu lượmc củi khô theo tháng, có quy định ngày cụ thể. Quyết định cuois cùng do hội đồng già làng. Chúng tôi cũng tham gia các cuộc gahspj khác như chuẩn bị chương trình văn nghệ cho lễ cũng rừng. Chúng tôi cảm thấy được tham gia trong các công tác quản lý bảo vệ và ử dụng rừng*].

Succinctly put, temporality changes in relation to activities of local people with their sacred forests and dates of different rituals in sacred forests consume local people at different times of the year. This is basically driven by social and environmental conditions of the region. This

difference also occures in the aspects of sequence and duration the time of the events take place.

There are a few studies that support this finding, and one study relates to the *Baxi* people, an ethnic minority group in China (Geng, et al., 2017). This work finds the community practices many festivals annually, and some locally available plants play a crucial part. In relation to ritual time, it is indicated that most festivals are celebrated according to the Chinese Lunar Callendar and the most important times during the lunar month are the first day and the fourteenth or fifteenth day. Another study that indicates time dimensions shows strict taboos can contribute directly to conservation through restricting the timing, methods and species of resource harvested (Reuben & Kquofi, 2015). This is consistent with research when CIRUM (2016) recently evaluated how the time of the year and duration of events that local people have in conducting cultural activities in their sacred forests, effect conservation. However, CIRUM (2016) did not provide details of the approaches used, or the inspiring sense of sacredness in local communities.

Understanding the diversity of sacred forests in terms of temporality implies governments need to cooperate in development programmes and policies related to local people that span the year, such as yield production, forest protection and biodiversity conservation. As discussed, ritual beliefs of indigenous people are an important tool in understanding local communities and aids nature conservation (Geng, et al., 2017). The work of scholars shows that local people possess sound knowledge of ritual plants and the great diversity of local plant species, which are constant reminders to conserve nature. Research indicates a need for further studies on in-depth understanding of the role of traditional beliefs in biodiversity conservation. As this work argues, relevant knowledge on ethnobotanical practices and beliefs can be supporting material in discussing how religious beliefs contribute to conservation.

8.4. Contribution of local people

The fieldwork in this study indicates that there is a wide range of cultural contributions by local people to be observed in their interactions with sacred forests. Summarizing responses of informants, classifies the contributions into two groups, household and non-monetary based contributions, summarized in Table 8c below.

Table 8c: Contribution of local people in relation to management of sacred forests

Contribution	***Sacred forests***		
	Nao Long	*Thy Ty*	*Nuoc Giot*
Monetary	Each village household voluntarily contributes annually 30.000 đồng (around 1.5 USD)	Each village household voluntarily contributes annually 10.000 đồng	Each village household voluntarily contributes annually 20.000 đồng
Material			- Chicken, wine - Pig, wine: if including participation of whole village - Buffalo in accordance with 1 to 3 wine/family: between 5 – 7 years/one time
Labour force	As guardians protecting the forests; serving voluntarily in the festival time	As guardians protecting the forests; serving voluntarily in the festival time	As guardians protecting the forests; serving voluntarily in the festival time

Source: Field notes, 2018.

Monetary based contributions are not favoured in payment for the work of protecting and managing sacred forests. This is explained by research informants that it is not suitable to ask villagers to contribute money when their economy is not based on money. In other words,

money is not highly available in the exchanges in these villages. Instead, the informants elaborated the dynamics of a non-money-based currency of the local people:

> Mr. Vi Van Sau (Elderly people): Each village household voluntarily contributes 20.000 đồng per year in order to support the protection work of their sacred forests: paying the group of forest guardians organized by the village [*Mỗi hộ gia đình đóng ghóp 20.000 đồng hang năm để ghóp phàn và công tác bảo vệ và tuần tra rừng. Việc này như là hỗ trợ nước uống, công xá cho người tham gia. Chỉ hộ trọ phần nào, vf việc đó là tự nguyện*].
>
> Mr. A Thut (The Partriarch of *K'Bay* village): *Bahnar* people contribute to the *Nước Giọt* by providing basic needs such as labour, grazing animals (eg. pigs, chickens)… historically, the contributions are made voluntarily depending on availability of each household. However, in recent years there is the rule issued by the *Gia Lang*, that there are two levels of contribution for each households-depending on the economic condition of the family [*Người Bahnar đóng ghóp vào lễ Nước giọt thong qua các đóng ghóp cơ bản như công sức, vật nuôi (lợn, gà…) để phục vụ lễ cúng rừng…Theo lịch sử để lại, việc đóng ghóp là tự nguyện, tùy khả năng từng hộ gia đình. Nhưng những năm gần đây hội đồng già làng quy định cụ thể hơn. Tuy nhiên, việc quy định cũng dựa trê khả năng của hộ gia dình, đảm bảo tính khả thi*].

Another example of monetary-based contributions was in *Pho Cu* village, an extensive village of the field study. According to *Mr. Hong*, people in the village contributed money to make a fence around their sacred forest. This money is used only in buying materials while the work of making the fence is crried out by the villagers.

Material objects are commonly used to contribute towards activities in sacred forests, such as paying people to review the forests; proving food and basic needs for rituals; or even as part of punishments for those who break the rules of their villages. These things are diverse ranging from honey, incense, goats, pigs etc. (Figure 8c, 8d, and 8e). Some typical conversations around this are:

Mr. Ly Seo Chua (The Partriarch of *Lung San* village): I am the custodian of the site called "*HuaPa*"; I inherited this responsibility from my parents, my father *Ly Seo Toan*; he used to help people. I assist people with their problems at the cave known as "*HuaPa*". The meaning of "*HuaPa*" - a place where you can bring all your problems…and they will be solved. When a person has been cured there is a fee…you can bring honey, you can bring incense, you can bring a goat, a pig… [*Tôi là người giữ gìn cho khu vực thiêng tên gọi "HuaPa"; tôi kế tục việc này từ đời cha ông của tôi, từ cha tôi là Lý Seo Toán; ông áy giúp tôi làm quyen dần với việc cũng rừng này. Tôi giúp mọi người làm lễ để giải hạn, thoát khỏi các khó khăn gặp phải. Mọi việc diễn ra tại hang đồng tên trùng là "HuaPa". Nghĩa của "HuaPa" là nơi mà mọi người có thể cầu xin khi ghặp bất cứ khó khăn gì. Tất nhiên việc cầu xin có chút lệ phí nhất định…nhưng toàn bằng hiện vật như là chai mật ong, hương hoa ngũ quả, lợn gà…*].

Mr. A'Đíu (Head of *K'Bay* village): … all villagers were invited to the Community *Rong* House to have a lunch together. The village elder and village leader told all villagers that "We don't want to eat these things, but we have to eat them because this is to remind all of us to not pollute the environment and not violate our customary law". Customary law of the *Bahnar* people is a power for securing the villagers' livelihoods. It is also very helpful for education for the younger generations […*Mọi người dân được mời tới nhà Nhà Rông để ăn lễ với nhau. Người già nhất làng sẽ tuyên bố lý do tại sao phải ăn uongs theo cộng đồng. Mục đích là để gắn kết, ôn lại truyền thống, để mọi người hiểu biết nhau hơn. Cũng là để tuyên truyền về chủ trương của Đảng và pháp luật của Nhà nước. Vì thé có tính giáo dục rất cao*].

Figure 8c: Chicken used

Source: Photo taken by author on 9th April 2014.

Figure 8d: Pig used

Source: Photo taken by author on 5th February 2014.

Figure 8e: In sense

Source: Photo taken by author on 9th April 2018.

The two village case studies and their associated sacred forests show that there is a wide range of contributions by local people in managing the forests. These contributions differ between communities as well as cultural activities. People regularly make monetary-based contributions, and the amount is judged on households and individuals. This contribution is meant as a fee for organizing the festivals as well as other forest management activities. Beside this, people contribute with voluntary labour by participating in preparation for the festivals.

This is reflected in studies of other ethnic groups in Vietnam. For example, Ngoc et al. (2016) says that people who cut down trees without permission by the community or forest managers, are punished by partly offering sacrifices of 36 kilos of pork, 36 litres of alcohol, 20 kilos of rice. Studies of sacred forests of the *Ha Nhi* communities in Vietnam, show details of taboos, including aspects of how the local community select leaders, what punishments are applied if someone breaks the rules or taboos, and under which conditions villagers are allowed to interact with the forests.

8.5. Participation

While participation of local people is crucial to successful management of natural resources and forests (Danielsen et al., 2009; Shackleton et al., 2002; Ribot, 2002), the previous discussion in Chapter 4, Section 4.3 shows that in many studies, participation has been ignored for cultural activities in sacred forests. This field study shows that participation of local people in cultural activities makes a difference in understanding the diversity of sacred forests. There are only a few cultural activities in sacred forests that fully include participation of local people, but mostly, participation is selective, or partly inclusive of local people as well as outsiders (Table 8d below).

Table 8d: Involvement of local people in cultural activities related to sacred forests

Participation scale	***Sacred forests***		
	Nao Long	*Thy Ty*	*Nuoc Giot*
Open or close to the public	Invitation to representatives from other regions such as: neighbouring villages or communities in other communes	No	Invitation to representatives from other regions such as: neighbouring villages or communities in other communes
Village council	- Involvement of village elders, especially the patriarch is compulsory, and have the role of organizers - Representative of village authority including: the village headman, the village women union, the village youth union, and village security	Village counsel are organizers	Village counsel, play the role of organizers
Family	Family representative is	Family	Free to either

	compulsory	representative is compulsory	participate or not be involved

Source: Field notes, 2018.

The above table shows there is less participation, which indicates not every villager is involved in cultural activities related to sacred forests. Beside that, the involvement is uneven across communities and cultural activities.

Among the three sacred forests of this study, the *Nao Long* of the *H'Mong* community at *Lung San* village is the most inclusive in terms of people's participation. In this regard, participants of this ritual are from different social groups. Firstly, village elders, especially the patriarch is required to participate. They have the roles of organizers for the ritual practice, and secondly, there are representatives of the village authority, including the village headman, the village women's union, the village youth union, and village security. Information about these unions is discussed previously in Chapter 6 (Section 6.2). The involvement of these people is seen as a connection between community and state power at the village level. Typical, explanations from research participants are:

> Mr. Ly Seo Chua (The Partriarch of Lung San village): *Nao Long* of *Lung San* village is special compared to other *Nao Long* because of some reasons. *Nao Long*, which is completely different to others, its history relates to many other "*Nao Long*" forests in other districts, such as: *Muong Khuong* district, *Van Ban* district…his *Nao Long* is the *"mother Nao Long*" (in communication 12 Jannuary 2018) [*Nào Lồng của thôn Lùng Sán rất đặc bietj vì nhiều lý do. Nào Lồng này có thể nói là khác hẳn các Nào lồng ở huyện khác, về lịch sử nó lien quan đến các Nào Lồng khác, ở các huyện như mường Khương, Văn bàn… Nó được xem là Nào Lồng mẹ vì là gốc, tách ra cho các Nào Lồng khác ở trên dịa bàn tỉnh Lào Cai*].
>
> Mr. Cu Xao Minh (Young Adult): the *Nao Long* is really, really big, for the commune and district levels…this forest holds some stories which are

spiritual …[*Nào Lồng này rất là to. Vì lễ là cả huyện về tham gia (chính quyền)… Đặc biệ có rất nhiều giai thoại kể về nó mà rất kỳ bí*].

The interviewees indicate that this *Nao Long* ritual and the forest is different from other *Nao Long* forests in other villages. It is special because it is at a higher level in terms of history and status in conducting ceremonies or rituals. It is commune level (or even district level) rather than village level like the *Nao Long* conducted elsewhere.

Cultural activities of *Thu Ty* sacred forest requires the participation of each family representative. However, this participation is different from other ethnic communities. Observation of this cultural activity relates to two groups, one the *H'Mong* community at *Lung San* village, and the other belongs to *Nung*, where 45 of the 48 research participants confirmed that the ritual ceremony of *Thu Ty* sacred forest at *Lung San* village requires the compulsorily participation of representatives of village households. One of the *Thu Ty* of *Nung* ethnic group's participants said:

> Mr. Luong Van Thinh (Adult): To *Nung* ethnicity, everyone can access ritual activities. However, it is compulsory to have at least one person per family to participate in the activities. *Nung* people basically are willing to get involved in the rituals [*Đối với người Nùng, lễ cũng rừng thì ai cũng được qiyeenf tham gia. Tuy nhiên, nó là bắt buộc it nhất mỗi gia đình một người đại diện. Nhìn chung người Nùng rất là hăng hái và tự nguyện tham gia lễ cúng rừng*].

This research participant indicated that annually, he comes back to his home-village to participate in the rituals, although he lives far way. The point about obligation to participate in ritual has been claimed in many other interviews, such as the interview with *Mr. Dung* (14 Jannuary 2018), a participant from the first case study.

Nuoc Giot ritual is the most important in terms of people's participation, as was indicated by the patriarch *Mr. A Thut* in discussions on 13th April. The ritual "is open for everyone to participate in" [*lễ hội dành cho cả buô làng tham gia*]. However, children seem to be absent when the location for the "*Giot Nuoc*" ritual in the forest is far away. Furthermore, many young people may be absent due to their move to cities for studying in universities or working.

In summary, there is a wide range of participation by local people, as well as outsiders in cultural activities related to sacred forests. This participation is different between communities as well as activities. There are a few cultural activities of sacred forests that include full participation of local people, but mostly, it is selective, or partly inclusive for local people as well as outsiders.

This implies some problems with local people's involvement in cultural activities relating to sacred forest. As indicated in a case study in Mozambique, even though customary institutions are still strong, they are subject to power struggles at both local and national levels (Virtanen, 2002). This work suggests that any outside interventions regarding such local institutions as sacred forests, which have high symbolic value, should be considered carefully. Understanding the diversity of participation is significant in dealing with the erosion of traditional religions and values, and the arrival of new ones, which is identified as one of the most mentioned (among 8) reasons for sacred forest degradation (Soury, 2007; Shepheard-Walwyn2014; Umazi, et al., 2013; Dudley et al., 2010). This will help in a sense that government policies and programmes should pay attention toward strengthening participation in order to raise awareness in younger generations. Nakashima et al (2000) spells out that traditional knowledge is passed from generation to generation, usually by word of mouth and through cultural rituals. This understanding is helpful in the sense that there is a need to deal with the ineffectiveness of participation regarding gender equality and efficacy implications in Agarwal (2001).

8.6. Quantity

In the villages under study, all research informants said that sacred forests are found in every village in the region at a higher level of authority, commune level. Some informants who are more knowledgable (e.g. go outside community more than the rest, or have well-educated backgrounds) indicate the existence of sacred forests is similar in commune, district, and provincial levels. Some extracts on this are:

> Mr. Cu Xao Minh (Young adult): You will find such forests in every village. Usually two, some have one, some have more, but not many. This village itself has 2 sacred forests. People pray here to seek comfort. It's their faith. They find

solace here. Secondly, as much as I have seen, every forest is symbolized by 4-6 big trees. These are protected trees. If you ask people about these trees, a 50-year old will say he has seen it just this way from the beginning. Even a 70-year old remembers seeing them just as they are now. The trees were there at the time when the forest was founded. I feel some of these trees are nearly 300 years old. And even much more is the tree next to it [*Anh sẽ thấy nhiều câu chuyện tương tự ở các ngôi làng khác trong địa bàn huyện này. Thông thường mỗi làng có một đến hai khu rừng thiêng. Ví dụ thôn Lùng Sán có 2 khu như vậy. Đó là niềm tin có từ lâu đời. Họ tìm thấy sự linh thiêng ở đó. Thứ hai là tôi thấy mỗi khu rừng như vậy sẽ có 4-6 cây như là biểu tượng của khu rừng. Những cây này được bảo vệ nghiêm ngặt. Nếu anh hỏi người dân, người khoảng 50 tuổi đổ lên, họ sẽ nói là tuổi những cây này có từ khi họ sinh ra. Có những cây thậm chí đến 300 trăm tuổi đấy. Và thậm chí hơn, anh nhín cây kề bên xem*].

Mr. Hong (District authority officer): There are 32 sacred forests in the commune and hundreds in the mountains whole district [*Có đến 32 khu rừng thiêng ở xã Lùng Sui này*].

Mr. Hong (District authority officer): In responding to the question "This site does it belong to the family or to the village", said: "To the village. It belongs to everyone" [*Trả lời câu hỏi "soa những khu rừng này không ở hữu hộ gia đình cá nhân, anh nói: "Nó là của cả bản. Nó thuộc về mọi người*].

Observing responses from participants at village level shows that each village has a certain number of sacred forests, and usually two. This observation emerged in conversations with people in authority (mostly at national, provincial, and district levels in the field study). The field study also showed locations of sacred forests are diverse. Some local, others farway.

Vietnam is consistent with other countries in world, when sacred forests occur everywhere "*o khap noi"* (in different corners of the country). This was previously experienced when working in sacred forests located in most administrative units in the country. The number is shown in detail in Table 8e**.** In supporting this table, Vietnam is officially divided into four major administrative levels, with different types of administrative unit at each each level: 1)

municipality (*thành phố trực thuộc trung ương*) and province (*tỉnh*); 2) urban district (*quận*), provincial city (*thành phố trực thuộc tỉnh*), town (*thị xã*) and rural district (*huyện*); 3) ward (*phường*), township (*thị trấn*) and commune (*xã*); and 4) hamlet (*xóm*, *ấp*) and village (*làng*, *thôn*, *bản*) (Vietnam General Statistics Office, 2017) (previously presented in chapter 7, section 7.2).

Table 8e: Number of units devided by level of authority

Authority level	***Number of unit***
Central level	1
Provinces and cities	64
Districts and towns	713
Commune	9,111
Village	11,112

Source: Adapt from Vietnam General Statistics Office (2017).

This implies that there are a few sacred forests existing in each village, which supports and questions findings in other studies in other countries. For example, Schelhas & Greenberg, (1996) conclude that "on average, most villages have two sacred groves; but in a few instances, up to five sacred groves are identified (pp. 310 – 311).

Research outcomes support global claims of diversification of sacred natural sites per community and that sacred forests are a "global phenomenon", as discussed in Chapter 5 (section 5.3). At national and local levels, the section shows that India is exceptional in diversity as well as documentation on sacred forests. The section also shows that the global diversity of sacred forests makes it impossible to have full knowledge about the number of these places existing in the world today.

There are implications that it may be possible to predict roughly the number of sacred forests in Vietnam. However, this prediction needs to consider that some minority groups do not formally have a concept for sacred forests. Eventhough, the finding is still significant, this indicates an urgent need to quantatively investigate the status of sacred forests in Vietnam in regard to location, who owns them, physical and cultural condition. This is in line with many other recommendations for further research (Umazi et al., 2013; Ormsby, 2013; Wild et al (2010). Noticeably, Wild et al (2010) synthesises hundreds of previous studies, concluding that sacred natural sites are globally important, but largely unrecognized. Similarly, Wild et al (2010) reviewed by Singh (2012), indicates that "sacred natural sites and conservation are still under researched, and that the total number of such sites has not been listed yet, unlike World Heritage Sites, which are places of considerable tourist influx" (pp. 1).

8.7. Ownership

This fieldwork shows that the three sacred forests are owned by the local communities, both practically and legally. This ownership was confirmed by most of the interviewees, with detail presented previously in Chapter 7, Section 7.2. Local people have managed and used the forests for generations, and the informants could not say exactly when it started under the management of their ancestors. The section indicates that the villagers often interpret sacred forests as "*rung cua ban*" (village forests), or "*rung cua cong dong*" (community forests). Usually, this means that the forests belong to the people in the village as common property.

However, "village forests" and "community forests" in Vietnam are completely different to sacred forests in that they are formally defined by the law. While sacred forests are not officially recognized (Chapter 6, Section 6.3), village forests and community forests are formally defined by law and more importantly, are legally allocated to the local communities by a certificate called generally "*Sổ Đỏ*" (Red Book). *Sổ Đỏ* is an abbreviation of a "land-use right certificate" which is used in government programs related to forest land allocation (Bach, 2016). These programs are implemented under the legal basis of community forestry implementation in Vietnam, which is collectively formed by The Forest Development and Protection Law (1991) and Land Law (1993), mandated and approved in 2013 (Vietnam National Assembly Office, 2000; Vietnam National Assembly Office, 2005; Vietnam

National Assembly Office, 2015). A more detailed description of management of village forests and community forests is presented in Box 8a.

Box 8a: Village unit and community forest management in Vietnam

In the historical development of Vietnam, villages, which are referred to in different ethnic minority languages as *làng, bản, thôn, buôn, bon, phum, sóc, ấp* have become forest owners, and have a very important role in forest management and protection. The village in ethnic minority groups manages forests collectively based on its community customs, religion, social arrangement for livelihoods and forest protection. The traditional cultural values of ethnic groups have been recognized and respected by many regimes.

In comparison to other types of forest owners, the *village community* traditionally manages collective forests in a different way: (i) A village in an ethnic minority group is organized by institutions for the self-arrangement of that society, and the self-management of natural resources. An organized village community is headed by elders or a village head who are selected by villagers, and who is accepted and respected by community members; (ii) A village sets up its own mechanism for effective management of forests on the basis of local religion and unwritten village regulations, or by customary law; (iii) Village collective management of forests aims at common interests and benefits to the community in terms of culture, religion, living environment (including water sources), and support of the daily life of local people, such as collecting non-timber products for domestic use rather than for trade.

Source: Adapted from CIRUM (2017).

The conflict in understanding the concept of sacred forests in terms of ownership may explain why at ground level local communities in Vietnam own very little customary forests. As indicated in Chapter 6, although the country has seen decades of forest land ownership being decentralizing from the State, only 24% of forests are owned by local people of which 4% belongs to the 53 ethnic minority groups (MARD, 2014). As further argued in the chapter, on

the ground, communities manage more forests than the official record of less than 1% (Balooni& Inoue, 2007).

Furthermore, the indication of ownership is consistent when property rights are touched on when defining the terms “sacred forest” and “sacred natural site” in many studies (Ormsby, 2013; Anh, 2010; Oviedo & Jeanrenaud, 2007 cited in Verschuuren, 2010; McIvor, Fincke & Oviedo, 2008; Schelhas & Greenberg, 1996; Chidester & Linenthal, 1995; Andhra Pradesh, nd). A detailed discussion of these references is presented in Chapter 4 (Section 4.2).

8.8. Sacred forest utilization: Single vs multiple

Fieldwork shows that the three sacred forests have multiple uses for local communities of the two villages. Cultural use is the main purpose, though villagers do use the forests for other reasons, such as cutting timber under strict supervision by their elder council, collecting materials for fuelwood and food. Figure 8f and 8g are pictures showing multiple uses of the *Nao Long* sacred forest.

Figure 8f: Collecting firewood

Source: Photo taken by author on 9th April 2018.

Figure 8g: Ritual activity

Source: Photo taken by author on 9th April 2014.

Differently to sacred forests of the *H'Mong* people, the *Giot Nuoc* sacred forest may have more uses. As observed, this sacred forest is poorer in terms of canopy and tree size. Especially, there are far less dead trees and branches in the forest. When asked, *Mr. Athu* explained about the utilization, saying that people are heavily dependent on the forest for daily collecting of food, and demands for timber for building new houses, and for fuelwood. He explained that people do not have alternatives when the availability of other forests arround is low.

Some respondents indicate that sacred forests are specified by single use and cultural activities only. However, these sacred forests do not belong to the two villages in this case study. The "*Nao Long*" sacred forest in *Pho Cu* village (Figure 8h, 8i, and 8k) belongs to another commune in the same district of the *Lung San* village. Although this forest now belongs to a community with a mix of people from different ethnic groups, it originally belonged to the *H'Mong*, which is the reason why it is named "*Nao Long*". This sacred forest is only used for cultural purposes, which is to practice the *Nao Long* ritual (Section 7.2). Consequently, people are not allowed to use this forest for any other means, even collecting dead branches and dried leaves for fuel, or collecting material for medicine. With regard to collecting material for medicine, the exception is the healer of the village who is responsible for collecting these materials to cure people who are sick in the village:

> Mr. Vi Van Sau (Elderly male): We are not allowed to cut the forest. It is permitted to use the water at some locations, at others you cannot touch it. It is permitted to take honey but you have to give one bottle to the custodian. The forest is an important component of the place, if it is cut, it is lost. Like yesterday, we got lost, there was no forest, it had all been cut. Only desert remained [*Chúng tôi không được chặt cây trong rừng. Nhưng dược phép sử dụng nguồn nươc ở những khu vực được quy định cụ thể. Cũng được phép lấy mặt ong nhưng phải để một chai làm cho người giữ rừng để tạ ơn. Rừng quan trọng cho cả vùng. Nếu bi chặt hạ sẽ mất luồn rừng của toàn khu vực xung quynh. Như một số địa điểm mất rừng, làm cho hoang tàn. Khung cảnh như sa mạc].*
>
> Mr. Hong (District authority officer): the regulation prohibits acts for instance logging, collecting firewood and in-discriminate defecation. Healers are allowed

to collect herbs to treat patients" [*Hương ước của bản cấm nhiều thứ, ví dụ như khai thác gỗ, thu nhặt củi và lâm sản phụ khac. Tuy nhiên, thấy thuốc của thôn được phép thu hái vì mục đích phục vụ cả thôn, ai đau ốm*].

Figure 8h: Whole forest

Source: Photo taken by author on 9th April 2018.

Figure 8i: Dead branch

Source: Photo taken by author on 5th February 2017.

Figure 8k: Cultural activity evidence

Source: Photo taken by author on 9th April 2015.

Another example of sacred forests belonging to the *Nung* people, another ethnic minority group in Vietnam, is in their culture, sacred forests are strictly used for cultural purposes only. People are not allowed to do anything except pray during rituals at certain times. This was reflected on by Mr. Thinh, an informant from the first case study. Another example relates to the *Ha Nhi*, another ethnic community in the country. This group is popular in other districts of the province in the first case study. This was in evidence previously during working for an institution in the central government, and about how sacred forests are managed by the community. The *Ha Nhi* people believe sacred forests are highly superior and spiritual. They do not take anything from sacred forests, because they believe they will be punished if disturbing the forests.

This finding is consistent with the categorization of sacred forests in existing studies. As presented previously in Chapter 4 (Section 4.3), in terms of utilization, sacred forests seem to

be classified into two groups: multidimensional and specific uses. In relation to the multiple-uses of sacred forests, Chapter 5 (Section 5.4) numerous empirical studies indicate these places are used for many purposes, including: collecting fuelwood, generating income for local communities, and cultural activities.

In relation to the specification of sacred forests, the section also shows many empirical studies, that further reveal a diversity of this classification (Babalola et al., 2014; Martín et al., 2011; Gokhale & Pala, 2011; Soury, 2007; Bhagwat & Rutte, 2006; Schelhas & Greenberg, 1996). As exemplified in the section, in a case study by Babalola et al (2014), they indicate that in six of the sacred forests, grazing cattle is permitted, and in nine sacred forests, dead fallen branches of the trees can be used as fuel wood. Especially, the section indicates that the specification of sacred forests resembles the classification of a sacred place in general, as proposed by Henrie's (1972) with five types of sacred places.

The extent of utilization is flexible and depends on the communities and sacred forests being used. This flexibility of use by the *H'Mong* people seems to be more so in "*Thu Ty*" than "*Nao Long*". Observations by the researcher indicate the *Nao Long* sacred forest is denser with more dead trees and branches; more big and old trees. As explained by some of the research participants, this is because the *Nao Long* forest has been less used by the local people for harvesting timber or collecting materials for fuelwood. In *Bahnar* communities by contrast, people are extensively allowed to interact with their sacred forests for other means than cultural activities, including collecting fuelwood, and income generation. Figure 8l, 8m, and 8n below show pictures indicating a sense of the sacred forests.

Figure 8l: Nao Long	Figure 8m: Thu Ty	Figure 8n: Nuoc Giot
Source: Photo taken by author on 9th April 2018.	Source: Photo taken by author on 5th February 2017.	Source: Photo taken by author on 9th April 2018.

8.9. Conclusion

As shown in Section 8.6, rural communities in Vietnam often have at least one sacred forest. Therefore, to convince the government of Vietnam of the importance and diversity of sacred forests for the whole country is to indicate the number of sacred forests each local community has. This is significant as the country still does not know how much sacred forests there is; and how much sacred forest is managed and used by local communities. As indicated in Chapter 3 (Section 3.3), communities manage more forests than the official record of less than 1% (Balooni & Inoue, 2007). However, there are indications that there is actually 8.9% tolerated customary management of ancestral land that is owned by the State, and many parts of forests are managed by around 10,000 communities, mostly ethnic minorities (Nguyen, 2009). In supporting this claim, Kim Dung et al (2017) indicates that up to 80% of state - owned forests are inhabited, either by communities who have historical claims on the land, or by those who have encroached on buffer areas (cited from Cuong et al., 2009).

Section 8.8 reveals that sacred forests can be categorized by their utilization. In this regard, the three sacred forests in the two village case studies have multiple uses. Further, the field study produces extra information that there are a few sacred forests used for single purposes with cultural objectives only. This diversity of utilization is contextual, depending on the culture of the people as well as availability of non-sacred forests for alternative material utilization. These findings basically challenge existing studies that indicate sacred forests are specific, and there are only two studies that discuss multiple use in place (Babalola et al. 2014). By contrast, empirical studies point out that sacred forests have specific classifications based on many aspects. Noticeably, sacred forests are classified by the associated village organizations and their functions, and Schelhas & Greenberg (1996), shows that: 52% are *sande lorgboi* (women's sacred forests), more than 38% are *poi lorgboi* (men's poro forest),

approximately 4% are *wunde lorgboi* (men's wunde forest), and over 2% are *hemi* (sacred prayer forest), *kabandae lorgboi* (legendary or mythical forest), and *humui lorgboi*, *kpikili lorgboi*, *gbangbani*, and *hunting* (all traditional village organizations), account for just under 4%. Also, many studies classify sacred forests based on their functions only (eg. Babalola et al. 2014; Martín, de Anguita et al., 2011; Gokhale & Pala, 2011; Bhagwat & Rutte, 2006).

Sections 8.2, 8.3, 8.4, and 8.5 show that different cultural practices between communities are the main driver making up the diversity of sacred forests. This challenges existing studies that categorize diversity of sacred natural sites and forests on biological as well as other aspects, including: geographical distribution, ownerships, and biodiversity. In terms of biodiversity, discussions in the previous chapter (Chapter 4, Section 4.3) give evidence that sacred forests have trendy names such as "hotspot", "islands of ecological diversity", "mini biosphere reserve". Similarly, sacred forests have been categorized as "global phenomenon", and it is impossible to have full knowledge about the number. In terms of ownership, they are often categorized as private, joint government and community, common property etc. - owners.

This new understanding on classifying sacred forests calls for a new approach to study in this area. Future study needs to move away from current classifications used in existing studies. Rather, it needs to be re-directed toward classifications based on the issues of institutional systems related to the management of sacred forests; community participation practice; and contribution of local people to cultural activities. This is significant if studying relationships between rituals and values of customary forests results in support for framing a definition of sacred forests (Nkwi 2017; Århem 2009; Phuong 2003). It is also significant when Reuben & Kquofi (2015) indicate that no study has systematically synthesized information on a large number of nature-related rituals.

Specifically, the findings imply that future research focus needs to take into account issues of objectivity, temporality, local participation as well as their contribution to cultural activities in sacred forests. Section 8.3 shows that temporality is diverse in relation to activities of local people in their sacred forests. In terms of the annual calendar, different rituals of sacred forests consume local people at different times of the year. This is basically driven by social and environmental conditions of the region, and by the sequence and duration of the events taking place.

Chapter 9
The Multi-dimensionality of sacred forests in Vietnam

9.1. Introduction

This chapter presents responses from local people on the last research question – "what are the contributions of sacred forests to local communities?" As responses by local people on this question is relevant to answering the "what", this chapter accordingly presents responses of the local people and the interpretation of the researcher to the "why" of these responses. In relation to the former, answers confirmfindings indicated in Chapter 4 (Section 4.4) that sacred forests are multi-dimensional in terms of contribution to local communities economically, envormentally and culturally. However, there are some sub-categories within these categories that repondents may not be able to recognize. For example, Section 9.3 shows the challenges local people face in recognizing some aspects of the environmental values of sacred forests, given that knowledge of local people is embedded in every activities and not distanced from this in the theorectical and structural aspects of these activities.

Sections 9.2 and 9.4 shows that cultural performance particularly, provides a diversity of responses revealing that sacred forests are contextual and that the the local cultures are embedded in livelihood generation of local people. Section 9.2 reveals that economic benefits of sacred forests is different between communities as well as individuals and reflects the subtle variations in culture from community to community and from individual to indivdual. As concluded in Section 9.2, utilization of sacred forests depends on the availability of resources from non-sacred forests, such as plantations, individual forests, and forests owned by the state. In Section 9.4, sacred forests are different to each other in terms of their cultural significance to local communities. The cultural performance of sacred forests was especially explored through ritual revealing the relationship between sacred forests and the local communities.

9.2. Economic dimension

As mentioned in Chapter 4 (Section 4.4), the economic value of forests relates to three elements employment creation, timber, and non-timber forest products. These categories are used as a result of adapting the United Nations's (1992) classification of "sustainable development" in combination with Kengen (1997). However, the fieldwork of this study focused mainly on exploring how local people perceive contributions of sacred forests in relation to timber and non-timber forest products. The contribution to employment was not focused on due to the priority of the researcher and in consideration of time availability, human resource support and challenges related to data collection in the field.

Timber and fuelwood use

a) Timber

There are a mix of responses to the question of "*whether logging is allowed in the sacred forests.*" As such, two out of the three sacred forests in this research allow harvesting of big trees for the purpose of timber utilization. The sacred forests of the *H'Mong* people, in the "*Nao Long*" strictly prohibits cutting trees for timber purposes, and is conditional in "*Thu Ty*". As observed in the field, the two sacred forests are generally dense with many big trees, and also many old dead trees. In these two forests, the "*Nao Long*" forest is denser and older with more dead trees. Figures 9a and 9b are pictures indicating that while the two sacred forests are different in terms of density, they still maintain some density within the surrounding landscapes. Some responses in the field study do reflect the ban of timer utilization in sacred forests:

> Mr. Hong (District official): ". . . people are not allowed to use this forest for any other means, even collecting dead branches and dried leaves for fuel-wood, or exploiting material for medicine use. …the regulation prohibits acts for instance of logging, collecting firewood and in discriminate defecation. Healers are allowed to collect herbs to treat patients . . ." [*Mọi người không được sử dụng những khu rừng này với bất cứ mục đích gì, cho dù chỉ là nhặt củi khô hay vơ lá rựng, hay khai thác cây thuốc nam….Quy định của bản cấm mọi hành động tương tự như vậy. Tuy nhiên, thầy mo, và một số người nhất định được phép làm mọt số việc cụ thể lien quan đến chữa bệnh cho dân làng hạc gia súc trong làng*].

Mr. Chua (Village Partriarch): “There is a special sacred forest in *Sinchen* village (another village). No one is allowed to go into the forest at any time. That village is far way. It takes one day to get there on foot…” [*Có một khu rừng thiêng ở Sinchen, nơi mà việc sử dụng rừng thiêng được thoải mái hơn. Ngôi làng đó ở đằng xa, qua mấy ngọn núi đó. Đi đến đó chắc phải mất một ngày ròng bằng đi bộ*].

Figure 9a: Nao Long sacred forest

Source: Photo taken by author on 9th April 2018.

Figure 9b: Nuoc Giot sacred forest

Source: Photo taken by author on 9th April 2014.

In relation to “*Thu Ty*” and “*Nuoc Giot*” forests of the *H’Mong* people and *Barhnar* communities respectively, big trees are allowed to be cut for certain demands of timber. For example, some endemic species are allow to be cut for making coffins in *Thu Ty* sacred forests, including *Litsea glutinosa*), locally known as *Bời lời* đỏ (Figures 9c & d). Another example, the *Irvingia malayana* or *Kơnia* tree in the sacred forests of the *Barhnar* people, are allowed to be selectively cut for making agricultural tools. Some typical responses on this are:

Mr. Dung (Elder): “For certain species, we cut for timber used in building houses. But for the houses of villagers only….. Also, we see logging couldn't do any harm if it is selectively carried out... In fact it would help the forest growth better as old trees need to be cut leaving spaces for baby trees. So we see no problem with logging selective portions of it . . .” [*Với một số loài cụ thể, người dân có thể khai*

hác để làm gỗ làm nhà. Nhưng chỉ là làm nhà cho dân làng … Và chũng tôi đảm bảo là khai thác không làm ảnh hưởng đến sự sinh trưởn và phát triển của rừng… Thực tê là khai thác một cách chọn lọc còn giúp rừng phát triển tốt hơn. Vì thế, không vấn đề gì khi khai thác đwcj kiểm soát bởi quy định của làng].

Mr. A Thut (Village Patriarch): ". . . the wood of the *Irvingia malayana* or the *Kơnia* tree (Figure 8e), is used in holy rituals. It's not used in the construction of buildings. However, the wood of oak is like iron. It is needed for making agricultural tools. If it is used in construction, then there will be nothing left for agriculture. And if there's no agriculture, how will human life be sustained . . ." [*Có hai loài là Bời lời đỏ và Kơ nia được sử dụng cho mục đích lễ cugnx rừng. Hai loài này không cho phép khai thác để làm các công trnhf xây dựng. Tuy nhiên, gỗ cành có thể dùng để làm công cụ sản xuất nong nghiepj như cuocs, cào…Mục đích là để giứ cho dân làng có nguồn để sử dụng hang ngày*].

Figure 9c: Bời lời đỏ tree

Source: Photo taken by author on 9th September 2015.

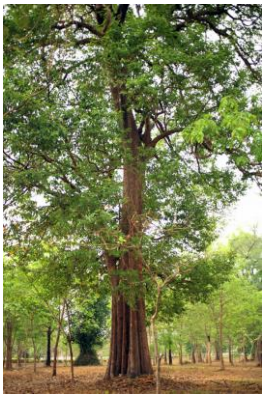


Figure 9d: Kơ nia tree

Source: Photo taken by author on 9th September 2014.

This finding disagrees with most existing studies related to timber utilization of sacred forests. In Chapter 4 (Section 4.4), highlights studies that claim timber exploitation in sacred forests is prohibited due to spiritual, social and cultural taboos, rules and customs (eg. Wiersum, 1997, cied in Mucahid et al., nd). However, there are a number of studies that indicate to the

contrary that sacred forests can be used for timber purposes. While listing different purposes/ecosystem services provided by sacred forests, the term "small timber" is used in Gokhale & Pala's (2011) study. Similarly, the term "timber" is used by a majority of the respondents (16%) in identifying fuel wood for multiple uses (Umazi et al., 2013 and Soury, 2007).

The understanding of timber utilization in sacred forests may be clearer in other studies. There is only one paper found to date quantitatively mentioning a timber value of sacred forests which indicates, "Approxiamately 20 – 30 % of timber from large trees is used for building houses, and small wood trees and bamboo for building animal housesand fences" (CIRUM, 2016: pp. 13). It is significant that Randrianarivony's et al. (2016) indicate one endemic species is allowed to be cut for making coffins, which is: *Dalbergia purpurascens Baill. (Fabaceae*), locally known as *Magnary*.

b) Fuelwood

Fuelwood is allowed to be collected in sacred forests as was witnessed in the two village studies, with the extent of collecting sustainably managed by village norms. Also, collection depends on availability of fuelwoods sourced from non-sacred forests such as individual forests (household forests), and debris along rivers and creeks. In other words, collecting fuel-wood from sacred forests has a lesser priority, and depends on demand as well as alternative options that local people have. Each ethnic group or village has their own rules depending on the conditions.

If there is no availabile sources from non-sacred forests, village customs will regulate fuel-wood being collected in a sustainable manner. This is the case of "*Thu Ty*" sacred forest of the *H'Mong* communities and the "*Nuot Giot*" forest of the *Barhnar* people. In relation to the "*Nuot Giot*" forest, the rules for the village is set to allow collecting firewood because there are not many non-sacred forests surrounding their village, as the following responses below indicate:

Mr. A Mung (Elder): "Yes, villagers have to collect fuelwood from the sacred forests. However, only dead branches and leaves are allowed to be collected. Actually, in the past (in the old location), we had plenty of forests, and we did not need to use sacred forests…" [*Vâng, dân làng chúng tôi phải thu nhặt củi từ rừng thiêng. Tuy nhiên, chúng tôi chỉ nhặt cành khô, lá khô. Thức tế ngày xưa, ở khu rừng lân cận có nhiều nguồn để cho thu củi đun, nên người dân không cần động đến rừng thiêng*].

Mr. Cu Xao Minh (Young adult): "It has been banned taking medicine in the forests for business with outsiders. It is told that there was a time the ban was introduced to deal with illegal havesting of resources in order to support buying from business…" [*Gần đây có chuyện dân bản phải ra quy định tức thì để ngăn nhiều người ngoài, thậm chí người dân trong bản thu hái cây dược liệu để bán cho thương lái trung quốc. Cái này rât nguy hại khi mai sau dân làng hết người thuốc chửa bệnh…*]

In the case of high availability of fuelwood sourced from non-sacred forests, collection is strictly banned in sacred forests, and regulation in the sacred forests of the *H'Mong* communities was witnessed during field research. The availability for these communities is high because they live in a mountainous and remote area, where To (2007) indicates that timber availability is much higher than low-land regions such as those belonging to *Thai, Ha Nhi,* and *Barhnar*. Responses reflecting the strict banning of collecting of fuel-wood from sacred forests:

Mr. Thinh (Adult): "…No. We collect fuelwood from alternatives such as alongside the rivers, household (individual) forests etc. . ." [….*Không. Chúng tôi nhặt củi khô, chất đót ở nơi khác như dọc bờ song, rừng hộ gia đình…*]

Mr. Dung (Elder): "No. Villagers collect fuelwood from their own individual forests. We have 56 out of 76 households who are allocated production forests…." [*Không. Người dân nhặt củi khô, lá khô từ rừng của họ được giao. Cả bản có 56 trên tổng số 76 hộ có rừng được nhà nước giao…*]

> Mr. Ha (District official): "… we (talking about his village) have plenty of firewood in other individual forests, so that we do not need to ban people clearing the sacred forests in a sustainable manner…" [*Chúng tôi có nhiều nguồn chất đốt từ rừng của hộ gia đình. Vì thế chúng tôi không lo lắm việc người dân sử dụng rừng thiêng. Họ chỉ coi rừng thiêng là nơi thờ cúng, linh thiêng…*]

This confirms and at the same time questions existing sacred forest studies, as discussed in more detail in Chapter 4 (Section 4.4). This section, indicates there are many studies showing that sacred forests provide fuelwood and are significance for this, for example, Gokhale & Pala (2011) indicates that 41 sacred forests are specified as locations for biom-ass extraction in the form of dead/dry wood, fallen twigs, and leaf litter. Allendorf's et al. (2014) surveys find that respondents visit sacred forests to extract fuelwood. Similarly, Umazi's et al. (2013) finds that the majority of respondents (16%) identified fuelwood. It is shown in Soury (2007) sacred forests are main sources of fuel-wood, and provide 80% of fuel needs for local people. These examples reflect other studies, including Oyelowo's et al. (2014) and Babalola's et al. (2014).

Non-timber forest products (NTFPs)

a) Hunting

Hunting is banned in all sacred forests in this case study, and during field studies, no research participants indicated that people use sacred forests as a means of food collection or for wild meat. From observations, this is evident, however, in other studies food sourced from wildlife is a critical part of people's diet, and hunting wild game in the forests is one crucial part of the subsistence relationship with forests:

> Mr. Athut (Village Patriarch): "And, so a lot of it is, is if it's taken away, like, it's not only for us its more, like we survived on the game ... did Art mentioned that the places he'd go up near *Măng Đen* up the mountain to hunt deer? So I mean if the place was clear-cut then that's gone . . ." [*Vâng, có rất nhiều khu rừng co nguy cơ bị xâm hại. Nếu bị khai thác, hoặc bị giao cho doanh nghệp, người dân không có rừng để dựa vào nữa…Nếu không có rừng, chúng tôi sẽ không tồn tại được*].

> Mr. Adiu (Village Head): "Yeah. I mean that's all we live on in the wintertime, wildlife and fish . . ." [*Vâng. Chúng tôi sống qua mùa đông nhơ nguồn thực phẩm của rừng và khe suối*].
>
> Mr. Sau (Elder): "...But we would have to take into consideration, like we have taken it a hell of a lot more seriously than the Ministry of Forestry on our concerns anyway with the hunting and the spiritual use or whatever uses there are. There are other uses ... people go up there and collect, maybe cedar-bark. So you know we'd have to take those more seriously than the Ministry of Forests would..." [*Chúng tôi phải coi trọng vấn đề bảo vệ và đấu tranh đòi được giao rừng. Vì Ngành Lâm nghiệp giao nhiều rừng cho doanh nghiệp thay vì người dân. Ngươ dân cần rừng cho thực phẩm, cây thuốc nam. Người dân cần rừng để bảo vệ nguồn nước…Nông lâm trường họ chị quan tâm đến khai thác gỗ*…]

This is inconsistent with many studies in other countries, but it supports existing studies that meat from hunting is a source of food provided by sacred forests. A number of studies use different ways to express the contribution, as investigated by Wadley & Colfer (2004), 130 hunts where recorded during their research, which shows how sacred forests in West Kalimantan, Indonesia are used by local people as a source of daily food (Wadley & Colfer, 2004). Similarly, in Oyelowo et al. (2014), 83.3% of respondents entered the forests for hunting. CIRUM's (2016) study recognises the economic value of a given sacred forest in Vietnam by counting numbers of grazing animals eg. cows, pigs, fields of rice, and water consumed by local people that benefit from the forests. By surveying local people, this study indicates VND 22.5 million/household/year (roughly US$1,000) is the economic contribution (including food) of the forests. In another study, fishing on the *Oso'ro River* is a serious offence, and none of the respondents indicate that villagers are involved in fishing (Babalola et al., 2014).

b) Collecting wild vegetables

As sacred forests have more bio-diversity than non-sacred forests, there is no doubt that these forests are abundant providers of nourishment and material sustenance for local people. From the sacred forests of the *Bahnar* people, vegetables and wildlife are critical dietary

supplements. As said in some interviews: "….We have to collect wild vegetables in the sacred forests as we have no choice…" [*chúng tôi rất có ý thức bảo vệ rừng để không bị mất nguồn sinh kế*], reflected by *Mr. A Diu*, an informant from the second case study. Following are responses indicating the importance of collecting vegetables:

> Mrs. Mua (Adult): "People pay special attention regarding certain plants, trees, thereby providing them food for their families. The bamboo tree in the sacred forest is one such species, bamboo shoots are vital in ensuring the economic and food security of people for everyday meals… the fodder from this sort of tree is good for cattle… You can find many such examples here . . ." [*Người dân quan niệm tính thiêng ở một số loài, trong đó có ca loài cho thức ăn và thuốc chữa bệnh. Cây măng rừng các loại là một trong những ví dụ như vậy. Nó cho rễ để ăn (mầm), cây để làm vật dụng rất nhiều thứ, là cho thức ăn gia súc… Nói chung là có vô vàn những ví dụ như vậy*].

> Mr. A Nei (Elder): "The sacred groves are very important. Our grandfathers lived in these groves. It rained and they grew food to feed us. These blessings came from the sacred groves. Now our grandfathers have gone, we have taken on their responsibilities . . ." [*Rừng thiêng rất quan trọng. Nó cung cấp nguồn thức ăn dồi dào ho người dân bản. Những điều măy mắn này đến từ rừn thiêng. Nhưng đời ong cha chúng tôi hiểu sâu hơn về mỗi quan trọng này. Còn bây gờ thì khác nhiều rồi*].

By contrast, this source of diet is less of a concern for the *H'Mong* people in the first case study. When asked about the possibility of collecting wild vegetables in the sacred forests, respondents often said: "… we do not need to do that when such kinds of materials are readily available in the land of non-sacred forests such as: household forests, hill farms, creeks…" [*Trong thời gian chặt hạ cũng như đưa gỗ về dựng nhà, các thành viên trong Ban quản lý bản Hốc thường xuyên giám sát chặt chẽ để tránh người dân lợi dụng việc làm nhà khai thác gỗ về bán*], *Mrs. Lin*, a research participant from the first case study. Overall, utilization depends on not only the demand of local people, but especially the availability of alternatives. Figure 9e shows pictures indicating some types of resources from the forests that are used for collecting vegetable.

Figure 9e: Some types of resources from the forests that are used for vegetable purposes

Source: Photo taken by author on 9th April 2014.

In line with other studies that recognize sacred forests have value in providing food to local people, Gupta & Sharma (2013) referring to Rashid *et al.* (2008), notes that wild edible plants are seen as food sources for the *Gujjar Tribe* inhabiting hilly areas of their study in the *District Rajouri* India. Umazi's et al. (2013) points out that 16% of respondents in their study identified forest food (NTFPs), and forage for livestock (14%), as the major resources derived from sacred forests. Similarly, Allendorf's et al. (2014) indicates that 5 out of 8 respondents in their study use sacred forest to extract mushrooms and pine needles, or leaves for food.

c) Medicinal materials

As well as food, sacred forests are main sources of medical plants. Most of the research participants confirmed that their sacred forests are used for collecting plants for medical purposes. Figure 9f shows pictures of some types of resources from the forests that are for medicinal purposes. This is contrary to other studies around the world, where sacred forests play minor roles in providing medical plants. As shown in Chapter 4 (Section 4.4), one study has 29.5% of research informants confirming collection of medicinal plants carried out in sacred forests (Babalola et al., 2014). The following responses from this study are in relation to the medicinal role of sacred forests in Vietnam:

> Mr. Chua (Village Partriarch): "I go to look for roots from the trees that I can use as medicine to treat people. I know 180 different kind of plants that can be used to treat people. I know those that are good and those that are bad . . ." [*Tôi thường*

vào rừng tìm rễ cây cho làm thuốc. Tôi biết đến hơn 180 loài rễ khác nhau mà có thể chữa bênh cho người ốm cũng như gia súc. Tôi cũng biết rễ cây nào là độc…].

Mr. Din (Adult): "The trees that are coming back…there is "*Rau tàu bay - Gynura divaricata*" which likes water….and there is "*Dây vác - Three-leaf cayratia*", "*Móp - Pimply lasia*", "*Chùm ngày - Moringa tree*" and "*Sa kê - Artocarpus altilis*" that you can see . . ." [*Rừng đang phục hồi… có rừng cây tàu bay, chúng móc như thác nước…Hay cây dây mác, cây móp, chum ngây như anh có thể thấy đó*].

Mr. A Khuong (Elder): "Yes a lot of different things too like gathering of our daily food, we used to have lots of wild vegetables even down here and up towards the mountains and of course the berries and, in our medicine. Our people still go up the mountain to get their different types of medicine, though they can't, not available down here maybe . . ." [*Vâng có nhiều thứ có thể thu hái từ rừng mà dùng cho thức ăn hang ngày cũng như chăn nuôi gia súc. Nói chung người dân dùng rất nhiều lâm sản phảm phụ từ cây, đặc biệt dùng cho làm thuốc nam. Mọi người hằng ngày vẫn hay lên các đỉnh núi xa để thu hoạch theo mùa của từng loài*].

Mr. Dung (Adult): "Oh yes, there's probably a lot of vegetation in there that's used for medicinal purposes or tea, there's swamp tea in there too . . ." [*Oh, vang, có vô vàn các loài rau rừng mà dùng cho thức ăn lẫn thuốc chữa bênh. Có những khu có rất nhiều, phải người trong thôn mới biết cụ thể*].

Figure 9f: Some types of resources from the forests that are used for medical purposes

Source: Photo taken by author on 9th April 2012.

Some people highlight the medical significance by likening their sacred forests to hospitals and floristic treasures. This is consistent with Soury (2007), where Agbo & Sokpon (1998) and Mgumia & Oba (2003) call sacred forests a repository or a refuge for wildlife, or a kind of botanical garden where the traditional healers can find rare medicinal plants essential for their *pharmacopoeias*. This degree of significance is crucial given the context of rural areas in many part of the world being disadvantaged in accessing public services such as healthcare (Målqvist et al., 2012; Quine et al., 2003; Tiwari et al., 2010). Responses that indicate this are in the three examples bellow:

> Mrs. A Lin (Elder): "During my childhood we never went to the hospital. I only went to the hospital to give birth when I was older. If someone had fever, it was the natural herbs and shrubs they used…maybe they would inhale the fumes or make an amulet…People even used to recite the *Quyuoc* until God gave them relief… There was not hospital in those days . . ." [*Hồi bé, chúng tôi rất ít phải vào bệnh viện. Ta chỉ đi viện đung một lần sinh con ở lứa tuổi. Nếu như ai đó bị cảm cúm, chúng tôi dùng là tự nhiên từ rừng …và dùng co thể thô hoạc qua sơ chế Mọi người thạm chí còn niệm thần chú gì dó để xin thần linh phù hộ trước khi dùng..Mà thời bấy giờ cũng không có bênh viện trong vùng…*]

> A. Len (Young adault): "This is *"Lá ngón*" (*Gelsemium elegans)*. It is poisonous. If the cattle get worms…we make a paste of these leaves…mix it with another herb called *"Rau lúi*" (*Gynura procumbens*)." " Here it is…The two leaves are ground together and applied on cows, buffalos or bullocks. When applied 3 to 4 times the worms get killed. This is *"Rau mở*" (*Gymnema tingens*). In case of a boil, pluck a leaf, apply its resin…it heals. This is *"Rau bò khai*" (*Erythropalum scandens Blume*). In case of tooth ache or gum inflammation…brush with its twig. You will feel better. Every morning brushing with its twig…makes teeth strong. It is also a cure for bleeding gums. This is *"Trái giác rừng*" (*Three-leaf cayratia*). It's got a tuber. In case of muscle sprain or swelling…apply the paste of this black tuber, it works. This is *"Rau mở*" (*Gymnema tingens*). It too has a small tuber. It grows this much on the ground. Be it a lactating woman, cow or a buffalo, it's boiled tubers if fed for 7 to 8 days improves lactation" [*Đây là cây lá*

ngón. Nó rất độc. Gia súc bị vết thương hở, chỉ cần rịt một ít trực tiếp là lành. Nó có đặc điểm là mọc kép rất giễ nhầm lẫn với cây chè vằng ở dưới mienf xuôi…Hay đây là cây rau mỏ. Nếu đun sôi, nhựa cô đặc nó ra sánh dùng làm thuốc rịt rất tốt. Hay đây là cây rau bò khai. Nếu đau răng hay lở miệng, ngậm nó rất tốt, giảm đâu, sát trùng và nhanh chóng cắt cơn đâu. Đây là cây trái gác rừng. Nó là một giạng giây leo. Nếu đau mỏi cơ bắp và xương khớp, xoa bóp là đỡ rất nhiều. Còn đây là cây rau mỏ. Nó có 2 ống rất to, chứa nhiều nước. Nó mọc trườn trên mặt đất, thích nước. Nó làm thức ăn rất tốt cho gia súc, kể cả phụ nữ mang bầu cũng nên dùng nó như mọt vị thuốc].

Mr. Cu Xao Minh (Aldult): "It serves as a reference site for floristic studies… Reserve forests are subject to a lot of planned man-made activities. In sacred forests no such activities take place. No plantation is done here. I have discovered many a sites in *Ta Lung San* (another side of the village) where evolution is evident. *Nui Chua* (name of a mountain) - variables of several species are seen from which new species are born. Some sacred forests where such beautiful elements are seen…are in dwindling state . . ." [*Rừng thiêng là nới như một địa danh về đa giạng thực vật…Rừng vườn quốc gia là của nhà nước thiết lập, có tính bộ máy. Còn rừng thiêng không cần thế. Không có các chương trình trồng rừng bổ sung. Ta thấy ở Tả Lùng Sán có vài địa danh như thế. Ví dụ như Núi Chúa, tên một đỉnh núi cao có rất nhiều loài thực vật phục vụ nghiên cứu khoa hcj của nhà nước…Một số khu rừng thiêng khác tương tự như ở huyện khác*].

Summarizing remarks

Generally, local people mostly use sacred forests to support their livelihood needs, which the research identifies in two groups: 1) timber and fuelwood use; 2) NTFPs use. In relation to the latter, the research further clarified two aspects - food and medicine. This in line with existing studies presented in the Chapter 4, showing sacred forests are widely acknowledged for livelihood generation for local people, and providing basic needs. In this regard, there is un-even use in relation to the specific utilization of sacred forests under the lense of local people. These findings both support and challenge existing studies in recognizing livelihood generation of sacred forests.

First of all, comparing the cultural dimensions presented below, sacred forest interactions are about supporting livelihoods of local people and indigenous communities. However, this interaction is more obvious in environmental protection, which contradicts research on global scales. As indicated in the Chapter 4, sacred forests are less researched in terms of supporting livelihoods of local people and indigenous communities in comparison to environmental and cultural dimensions. As justified in the chapter, this is because sacred forests are often small in size, though there is a significant, but uncountable number of these in the world.

It is also mixed for sacred forests providing livelihoods for local people in Vietnam. To some local communities, sacred forests are crucial for sustaining their diet. On the contrary, there are sacred forests where this role for their communities is moderated. The role of livelihood generation depends on the demand, and also the availability of resources from non-sacred forests such as protected areas, plantations, household forests, farms, creeks and rivers. When these places are available, local people tend to not be concerned about food sources from sacred forests. However, sacred forests are seen as a critical part of the diet of local people regions where there is a lack of alternative food sources. This concides with a suggestion made in recent studies, that unless viable options are provided to local communities for sustaining their economic conditions, any steps towards conservation of the sacred forests will not be successful (Vincent et al., 2019).

Furthermore, this suggests that it is critical to focus on supporting livelihoods for local people, if the world hopes to conserve biodiversity of all forests. In linking this to the global landscape, 50% to 90 % of total livelihood income of the poorest people are dependent on natural ecosystems (Roger, 2012), of which forests play an important part. It is significant to note that around 25% of the world's population of "forest peoples" depend to varying degrees on forests for their livelihoods, not just for food, but also for many other commondities such as fuel, livestock grazing areas and medicine (Sophie, 2012, citing in Hall & Patrinos, 2012). Indigenous people, globally constitute about 5% of the world's population, yet account for about 15% of the world's poor (Hall & Patrinos, 2012). Similarly, Soury (2007) surmises that rural poor depend upon biological resources to satisfy 90% of their day-to-day needs, and tropical forests provide medicine for around 3 million people in the world; nearly one third of the medicines used in the European Union are made from tropical plants.

A large scale implication for Vietnam is that the prospect of livelihood generation is important to indigenous communities and the continuation of sacred forests, because it is a "forestry country" with 70% of its population living in rural areas. Rural livelihoods are heavily dependent on forests, which comprise of 10,000 local communities' approximately, and mostly ethnic minorities. This is shown in Chapter 6 which indicates that Vietnam has 90 million people belonging to 54 groups, of which 53 groups are ethnic minorities and comprise 14% of the total population.

The way most communities use their sacred forests makes sure that the forests are sustainably used and strictly protected. This is controlled by a system of local taboos and rituals, presented in Chapters 7 & 8 and Section 9.4 in this chapter. Also, sacred forests act as hospitals and floristic treasures to local people, providing a diversity of species that are significant in medicinal uses. In this regard, it is interesting that knowledge on medical uses of sacred forest plants is not only diverse, but also only local people seem to hold this knowledege.

As ethnic communities generally hold rich ecological knowledge of their sacred forests, this implies that it is critical to conserve their knowledge, if the world wants to sustainably use forest ecosystems, where sacred forests are the hotspots of conservation and the focus of culture of local people. This is even more critical in the global context of indigenous knowledge being the basic component of any country's knowledge system (Mahadi, 2016). Specifically, indigenous knowledge is the basis of agriculture, food preparation, health care, education, conservation, and the wide range of other activities that sustain societies in many parts of the world (Nakashima et al., 2000).

9.3. An environmental dimension

Forest use in this discussion is classified as "sustainable forest management" which includes values of "supporting" and "regulating" (Assessment, 2005). These forests also support agricultural practice including nutrient re-cycling, soil formation, storing and absorbing CO2, producing clean water, and disease regulation. However, few of these values are generally recognized by local people in this research, who think only in practical terms of water and the beauty that sacred forests provide.

Water resources

Local people are usually only aware of the significance of sacred forests in providing drinking water, as well as regulating irrigation for their farms. There were several comments, 44 of 88 (33%) that indicated sacred forests play a key role in supporting water resources for villages. This was evident into two aspects, the first, rivers and creeks that suround the villages, supply filtered water via the forests for "domestic water" (*nuoc noi vung*), and for irrigation of crops (Figure 9g). This is summarized as follows:

> Mr. Din (Village Head): "… around 30 ha of rice fields from our village are irrigated with creeks collecting water from the two sacred forests and the 44 individual forests. Those rice fields produce about 200 tons of rice per year as some households harvest twice a year (production of 0.5 ton per hectare of rice)…. This is excluded other benefits of water use, such as showering for villagers and grazing animals; generating domestic hydrolic power; irrigating gardens of 76 households; cooking and drinking . . ." [*...Khoảng 30 héc ta lúa rẫy và lúa nước xung quynh bản hưởng lợi nguồn nước từ rừng thiêng này. Nguồn nước cũng lấy từ 44 khu rừng hộ gia đình ở thượng nguồn. Các cánh đồng lúa cho khoảng 200 tấn gạo hang năm, nuôi sống gần một trăm hộ dân trong bản. Đó là chưa kể cho nguồn nước sinh hoạt, chăn nuôi*].

Figure 9g: Pictures indicate relationship between water sources and sacred forests

Source: Photo taken by author on 9th April 2012.

Water run off benefits include water use in the communities for showering and grazing animals; generating domestic hydro-electric power; irrigating gardens; cooking and drinking. Because water sourced from forests is drinkable, and fresh water for domestic use is obtained straight from rivers and creeks, it is a critical source of water for villages during the dry season. This importance is reflected in complaints about the lack of water for agriculture, drinking and cooking, and daily use of showering in the second village case study. Following are some comments of interviewees indicating this use:

> Mr. Chua (The Patriarch of *Lung San* village): "A total of 76 households, with an average of eight persons per household, consumed 70 liters per household per day…" [*Tổng số hiện tại 76 hộ của thôn, với khoảng 8 nhân khẩu trong một hộ gia đình lơn, vì thế nhu cầu lấy nước khoảng 70 lít một hộ hang ngày…*]

> Mr. A Thut (The Patriarch of *K'Bay* village): "There is no drinking water because of lack of forests. If we want to build a water regulation project, we must have forests. But there is not any upstream forest… Due to losing forests in the upstream, no "drain age water forest" nước giọt, so that the culture has also been lost dramatically . . ." [*Ở làng này ngày nay không có nguonf nước uống vì thiếu rừng. Các dự án về nước sạch cứ thế bỏ hoang vì không có nguồn nước từ rừng…Vì mất rừng là mất nước từ các con khe, nơi gom lại để tạo hồ đập…Chúng tôi gọi là "gọt nước"...*]

Climate regulation

There is a noticeable lack of indepth understanding by local people of the role of forests (including sacred forests) have in regulating local climate. They do recognize the pleasantness these forests bring them because of the beauty, as well as the comfort of the cooler air influenced by them (Figure 9h). However, a few comments (i.e. 29 of 88, 33%) do show some knowledge that sacred forests play roles in regulating the environment and atmosphere. This concides with studies in other parts of the world that indicate the role of climate regulation by sacred forests. In relation to this study, and in response to the question "*do you think the sacred forests look beautiful*", there was one comment that stands out:

Mr. Ha (Adult): “Well for one thing it provides the shade… It retains moisture, which is good in drought days in summer … My eyes feel very pleased viewing the beauty of the forest too . . .” [*Rừng thiêng tạo cảnh quan bong mát cho thôn làng…Nó giữ ẩm, điều mà rất cần cho mua khô. Em cảm thấy thoải mái, thích mắt khi nhìn vào tán rừng xanh này*].

Figure 9h: Pictures indicate the beauty of sacred forests in the case study

Source: Photo taken by author on 9th April 2014.

This response highlights well that sacred forests are less important in locals thinking about climate regulation, however, it may show that indigenous people are less able to express this value as it is knowledge more in the domain of science rather than local understanding. In reality, sacred forests have more diversity of and density of trees, as indicated in Chapter 4 (Section 4.4), which has significantly impact on regulating the atmosphere by storing carbon dioxide and releasing oxygen.

Summarizing remark

Little of the environmental impact of sacred forests are rcognized by local people, even though they provide a wide range of values, such as regulation of carbon dioxide, water flow, disease control, supporting agriculture, soil protection, water provision and biodiversity

conservation (eg. Assessment, 2005). For watewr provision, local people were able to reflect on the significance of sacred forests in regulating water resources and pleasing their life through the beauty and positive superficial climate impact of the forests. Also, their understanding of the roles of the forests is mixed, because of a lack of scientific knowledge. While water regulation is obvious, it is challenging for them to recognize the role of sacred forests in regulating climate generally.

Therefore, it is suggested that forestry policy and relevant government programs raise awareness through education for local people. For example, the lack of knowledge about the roles of sacred forests in regulating cimate change needs to be addressed, as this may then be incorperated in climate change mitigation programs (Bayrak & Marafa, nd). As indicated above, scholars conclude that adding a socio-cultural and the spiritual value of forests to the REDD+ debate, would be beneficial in addressing concerns of indigenous people, and may help restore customary forest classifications.

This suggests t there needs to be diverse techniques to understand different environmental values that sacred natural sites and forests can bring to local people. It should also be taken into consideration that local people in Vietnam are poorly educated (eg. 86.3 per cent of male ethnic minorities are literate – Walther et al., 2015), which may negatively impact the environmental contributions of sacred forests. In accordance with this, it is necessary to be less formal when discussing with local people the environmental significance of sacred forests and natural sites. Instead of using terms such as "supporting service", there is a need to classify more specifically the roles of sacred forests in regulating water resources, and pleasing their life through the beautifull landscapes as well as positive climate impact of the forests.

9.4. Social – cultural – spiritual significance

Sacred forests maintain the identity of the people

Defining culture as a "complex and elaborate system of meaning and behavior that defines the way of life for a group or society" (Singh & Tandon, 2016: 51; Jain, nd), "the way of life" in the definition of Fearon (1999), helps validite the term "identity", which characterizes "who

they are, what sort of people they are, and how they relate to others". This characterization of group self awareness as Lewise (2000) states, is a sense of "cultural identity". In this regard, people interviewed often used terms "who we are" /or "who I am" to differentiate themselves from other ethnic groups in the country:

> Mr. Diep (Provincial forestry official): "…. *H'Mong* people across Vietnam know about *Nao Long* ritual. This is the same to *H'Mong* people in other countries such as China and Laos. Because we share the same *Nao Long*…" […*Người H'Mong khắp cả nước biết đến về lễ hội Nào Lồng. Có lẽ cái này cũng giống người H'Mong ở nước bạn như Trung quốc và Lào. Họ có chung phong tục thờ Nào Lồng* …]
>
> Mr. Athut (Partriarch): "These sites are part of my *Bahnar* (identity) and these sites are an important aspect of our spirituality . . ." [*Những địa danh nào là một phần lịch sử của người Bahnar, tạo nên bản sắc của họ. Chúng gắn với đời sống tinh thần, tính cách của con người nơi đây*].
>
> Mr. Chua (Elder): "I want this forest to remain untouched, to remain un-destroyed …that our future children generation will know how our ancestors were living, how they were doing such sacred things in this forest . . ." [*Ta muốn khu rừng này được gìn giữ muôn đời sau, đừng để nó bị phá hoại…vì nó là tương lai con cháu trong làng. Đẻ chó chúng nó biết về thế hệ cha ông và từ đó chúng nó đoàn kết làm ăn*].
>
> Mr. Dung (Elder): "Come and live with people. Eat what they eat, sleep where they sleep, and do what they do. We feel like to have you guys, you are not *Kinh* or "*nguoi thanh pho*" (urban people) anymore. But you are one of the locals, yeah…" [*Anh hay đến và sống cùng mọi người. Eat cùng, ở cung, ngủ cùng họ. Làm theo mọi thứ cùng họ. Anh sẽ thấy anh là một phần của họ, không có chỉ đơn thuần chỉ là tính cách của người Kinh nữa, hay người thành phố nữa. Anh sẽ trở thành người địa phương nơi đây…*]

Statements such as these are relatively commonplace during interviews, and indicated in Table 9a, all of the participants talk about the abstract and symbolic importance of the forests to their identity. As participants often repeated this sort of statement, there were 35 identity based responses recorded.

Table 9a: Number of Comments on the sense of Identity

Identity	**N**	**Count**	**Percent**
Elder	3	4	11.4%
Adult	9	11	31.4%
Young Adult	6	20	57.1%
Subtotal	**18**	**35**	**100%**
Notes:	*"N" refers to the number of participants in the interview sample by age* *"Count" refers to the number of statements addressed*		

Source: Field work 2018

Predominantly, participants talk about their physical connection to the forests, where this physical connection is about the dependence of local people on the forests for livelihood, as well as an environmental sense. They often indicate this connection through terms such as "we are surviving because of the forests"; "we are forest people". This reaonates with the notion of "mother earth" used by Li & Peñafiel (2019), indicating people who have historically been rooted in and derive their livelihoods from the land. They often characterise their relationship with the land in terms of - "The earth is part of us!" or "We are the land, and the land is us." This theme prevalent in discussions, was commonly made in reference to NTFPs (non-timber forest products) as the crucial sources of their identity:

Mr. Athut (Village Patrirch): “So, and of course as you are well aware too, our people, the forests and lakes, *Tay Nguyen* (Central Highland) is the forests and lakes, we survived, that's our main source of survival is the river forests and lakes and all types of resources in there...” [*Vì vậy, và tất nhiên như anh biết đó, người dân nơi đây, họ là một phần của rừng núi và song hồ nơi đây, tây Nguyên. Đây là vùng biết đến nhờ ní non, rừng và song hồ. Đây là những nguồn sinh tồn của người nơi đây…]*

Mr. Din (Adult): “This is “*Cây lá ngón*” (*Gelsemium elegans*). It is poisonous. If the cattle get worms…we make a paste of these leaves…mix it with another herb called “*Dây vắng*” (*Jaminumsubtriplinerve*). Here it is…The two leaves are ground together and applied on cows, buffalos or bullocks. When applied 3 to 4 times the worms get killed…” [*Đây là cây lá ngón. Nó độc để chữa trị các vết thương hở cho gia súc… Chỉ cần it là xát nhỏ, trọn với bột gạo, rịt vào rất tốt. hay cây giây vắng…Chỉ cần mấy lá này thôi, rít 3 đến 4 lần là vi khuẩn vết thương chết sạch…*].

Enhancing social bonds

Socially connecting people together is a main interpretation of the discussions about how resources generally are shared, and how rituals and ceremonies related to sacred forests are organized by the local communities. The rich description that follows shows a diversity of activities related to the rituals and ceremonies, the “carrying vehicles” that connect people to people as a society. The interpretation from the researcher’s observation in this ethnographic engagement is significant. Given the discussion in Chapter 4 (Section 4.4), this challenges existing studies that use survey-based approaches because ethnography has a deeper understanding of the “what” as well as exploring the “why” of the relationship between sacred forests and indigenous communities of this research.

Sharing resources, may also involve the pooling of resources and contributing to the care and sustenance of dependants, whether elders, children, or disabled adults. Also, sharing is evident through the activities of hunting and fishing as men set and pick nets, and women clean fish, or large hunting parties venture into the forest to find deer or elk meat for the coming winter.

This culture is considered to have "aboriginee ways," in contrast to a perceived absence of public institutional shared caring in non-aboriginal society described in other studies. Typical responses and a picture (Figure 9i) represents this culture:

> Mr. Adiu (Village Head): "...it was our belief, we always shared especially our food, and whatever we have, game, and some of the people to this day, my godson and my nephews they always come over and said we'll give you some deer meat to our elders, or to our relations . . ." [*...nó là niềm tin của người dân nơi đây, chúng tôi luôn chia sẻ thức ăn, bất cứ cái gì chúng tôi thu hái từ rừng. Ví dụ như con cháu của ta, hang tuần nó mang thịt thú rừng chia sẻ với ta như là cách để tỏ long kính trọng và biết ơn đến cha mẹ và ông bà*].

Figure 9i: Pictures indicating evidence that resources are used in a sharing manner by the communities

Source: Photo taken by author on 9th April 2014.

Observation in the field shows ritual practice involves many people not only within the villages, but also from outside, such as representatives of the commune authority, village Youth Union, Village Women Union amongst others. (Figure 9k). Ritual practice in the sacred forests of *H'Mong* people, are concentrated in two main rituals "*Nao Long*" and "*Thu Ty*". These ceremonies are sellectively participated in by invitation. Generally, participants are representatives, which means the rituals are not open for everyone to participate in. As some respondents said:

Mr. Chua (Village Patriarch): "The participants are selected representing social groups. Not everyone is allowed to participate... Also, we invite participants from "neighbouring villages." [*Già làng là người được chọn để tiến hành nghi lễ cúng rừng. Họ đại diện theo nhóm hộ gia đình. Không phải ai cũng được tham gia lễ hội đâu…Và, thỉnh thoảng lễ hộ có thành phần mời từ bên ngoài như đại diện làng bên cạnh, chính quyền các cấp*].

Mr. Minh (Young Adult): "Sacred forest ceremonies include the participation of not only people living around the forests, but also representatives of local authorities, such as the forest rangers department . . ." [*Lễ cúng rừng không chỉ người dân trong làng, mà còn mời chính quyền xã tham gia. Hay đôi lúc ta thấy mời cả người ở nơi khác, thậm chs khách về làm việc như anh*].

Figure 9k: Pictures indicating people involved in activities related to sacred forests

Source: Photo taken by author on 9th April 2013.

There is also a special "*Nao Long*", witnessed during field studies in *Lung San* village, *Lung Sui* commune. This ceremony includes extended participants from authorities at district level, and communes from other districts. In contrast to "*Nao Long*" in other villages, which are less formal, this investigation showed that this "*Nao Long*" is special not only from other "*Nao Long*", but also in the province, as Mr. Chua (Village patriarch) states:

"This *Nao Long* is the most formal. We invite participation from government authorities, which includes: commune authorities, village Youth Union, Village

Women Union…. Also, we invite participants from "neibouginh villges…." [*Nào Lồng này là trang trọng và quy mô nhất. Chúng tôi mời đến tận các cơ quan cấp tỉnh và huyện tham gia. Thỉnh thoảng còn có đau diện cơ quant rung ương. Mời theo đại diện địa phương như đoàn hội thanh niên, phu nữ, mặt trận tổ quốc…*]

People seem to be more social and build social networks as they join together sharing the food in the"ceremony stage" of these ritual activities. As indicated in the Figure 9l, people share and enjoy the party and drinking socially, as shown by some typical participant responses:

Mr. Dan (Adult): "...it's an annual festival, happening just one time a year. A lot of times a lot of thing to we'll, you know, we'll go out for a specific ceremony that we're going to be feeding a lot of people..." [*…nó là lễ hội hang năm, mỗi năm một lần. Nhiều thú vui lắm, chúng tôi chỉ việc ra ngoài, tham gia cũng, chia sẻ vui, tiệc tùng cùng mọi người. Nói chúng là nhiều người tụ tập, tăng them hiểu biết lẫn nhau…*]

Mr. A Tu (Elder): "In the end of the ceremony, everyone sit together to eat and drink *(ăn cùng mâm, ở cùng* nhà**)**, as well see the signals from the Spirits after receiving the offerings . . ." [*Cuối buổi lễ bao giờ cũng có tiệc tùng. Ngươ ta qua nệm cùng ăn, cùng ở, tạo sự đoàn kết. Cùng nhảy múa và chúc mừng để tỏ long biết ơn thần linh*].

Mr. A Thut (Elder): "This's "*bàn thờ*" (altar area – for praying) is like the only open place here in the middle part of the forest and here and this place actually for this feast after this ritual and all these people with elder and priests all together we'll carry the bull this side right up to this place, and they will cook it plainly here. No salt, no *chili pepper* (spices) that all just plainly they will consume it. After that only the ritual is finished this place is meant for that one . . ." [*Đây là bàn thờ thần ở khu rừng này. Được đặt ở vị trí trung tâm của khu rừn. Thức ăn, hương hoa quả trang trí trên bàn thờ được chuẩn bị công phu. Có những nguyên tắc của nó cả. Ví dụ như thức ăn cay không dùng. Au lễ hội, già làng sẽ tuyên bố để mọi người cùng tham gia hưởng lộc*].

Mr. A'Đíu (Village Head): "After getting a pig, wine and tobacco from the couple, all villagers were invited to the *Community Rong House* to have a lunch together. The village elder and village leader told to all villagers that "We don't want to eat these things, but we have to eat them because this is to remind all of us for not polluting the environment and not violating our customary law". Customary law of *Bahnar* people is a powerful in securing the villagers' livelihoods. It is also very helpful for educating the young and the next generations . . ." [*Lễ vật cúng từ các cặp đôi đám cưới cũng được thừa hưởng chung cho dân làng. Sauk hi cũng ở rừng thiêng, được đưa đến Nhà Rông, nơi mà ai cũng được tham gia hội họp. ở đó, mọi người thường nhảy múa và hò hát suốt đêm. Đây là nét riêng của người Bahnar. Phong tục này rất có giá trị giáo dục vì tính cộng đồng và tính lẽ của nó*].

Figure 9l: Pictures showing that resources are used in a sharing manner by the communities

Source: Photo taken by author on 9th April 2018.

In line with studies elsewhere (eg. in India, Dafni, 2007), this field study witnesses a diversity of activities associated with sacred forest rituals and ceremonies. These activities include kissing trees and worshipping them, passing judgments under the trees, wedding preparations in the forests, rainmaking rituals, sacrifices under the trees in the forests, leaving stones on/under the altar areas in the forests, leaving money on the altars , taking vows, candles/oil lamps lighting, charity, and decorating the altar areas. In these activities, people join in a common faith and belief, sharing the responsibility of organizing activities, and gathering, helping cementing feelings of community, togetherness and otherness.

Spirituality

The spiritual meaning of theses sacred forests are reflected in the belief by local people that supernatural entities exist in these places. This belief is apparent when observing the content of people's praies as a special part of conducting their rituals and ceremonies in the sacred forests of their villages. The belief by many research participants is inlinsically linked to the legends related to their sacred forests, and this engagement with the research on understanding rituals and ceremonies aided a deeper understanding of the relationship between local people and sacred forests. Discussions in Chapter 4 (Section 4.3) shows that rituals are not un-equivocal, and so they conceal divergent opinion and varying degrees of belief (Bachand & Bachand, 2005).

The sense of spirituality emanating from their belief in having gods living in the forests, and whom they believe are the owners of the forests, connect people to the sacred forest when they ask them for help in everyday ways, such as providing rain, protecting crops yields and animals from desease. Feelings of being scared as well as guilty when doing any thing wrong in the forests, is similar between the *H'Mong* and *Bahnar*. They beleive everything on the earth has its own soul, or "spirit", and specifically, nothing on this earth has been created for the exclusive use or enjoyment of any single person or community. Examples of responses that reflect this:

> Mr. Sau (Elder): "This is Goddness *Amu*. The Goddness lives in this forest…since our ancestor's time. This place belongs to her, it is fixed since old times. If we worship her…we can roam freely in the whole forest. Nothing will happen. Since old times we have gods like… *Tkai*, *Miengmen* and alike…on the hills. Gods like *Bhu*…*Vanua* …are there. Every time there's an epidemic or

diseases…we promise her a goat or a cock…and it is sheer cure. The God is everywhere… At the origin of river *Poko* also…there is a Goddness called *Etia"* [*Đây là thần Amu. Vị thần này ngự trị trong khu rừng này..từ thời cha ông của chúng tôi. Khu rừng này là của cô thần này, được giao nhiệm cụ từ thời cổ. Nếu cầu xin cô…chúng tôi có thể được giải phóng tâm hồn trong khu rừng. Khi đó, tai nạn, bênh tật sẽ tránh được. Từ thời xã xưa chúng tôi đã cúng các thần khác như Thai, Miengmen và tương tự như thế…tương wngs ở các đỉnh núi, khe suối, khu rừng, hang động. Ví dụ như thần Bhu…Vanua…ở đó. Khi có bênh tật gì hày đieuf gì xảy ra với vật nuôi…chúng tôi chỉ việc giang lễ vật lên cúng là được. Nói chúng người dân làng tin thần linh ở mọi lúc mọi nơi, họ quan sát và theo dõi cuộc sống trong làng, phù hộ che chở choa mọi người. Ví dụ như song poko có thần Etia*].

Mr. Lau A Senh (Adalt): "Everytime I go to the forest, I feel with strange emotions, such as scary, and sometime cleasing mind as well… I just feel sounds coming from forest are communicating with me. Also, I feel I am watched by someone behind trees in the darkness of dense trees, caves..." [*Cứ khi nào vào rừng, ta cảm thấy những cảm giác rất lạ, như là sợ hãi, và đôi lúc thì thấy tâm hồn thanh thơi…. Ta cảm nhận từ âm thanh vọng ra trong rừng, cứ như là vạn vật đang nói chuyện với nhau và nói chuyện với ta. Và ta cảm thấy mình không tách rời với cuộc sống sinh động đó …*]

Mr. A Thut (Village Patriarch): "You will not find such fish anywhere in the *Poko* river because they live here in complete protection. It's a spiritual belief. No one eyes them with the intent of killing them. They live under the shelter of *Lord Yang*. Neither the archaeological department nor the temple staff guards these fish . . ." [*Anh có thể tìm thấy các loài cá đó ở mọi khúc song trên song Pok bời vì môi trường ở đây được bảo vệ tuyệt đối bởi dân làng. Họ có niềm tin mãnh liệt có thần linh cung cấp nguồn cá.Không ai khai thác theo kiểu tận diệt. Họ sống nhờ nguồn bảo vệ từ Yang. Kể cả các nhà khoa học đén đây nghiên cứu cũng phải cẩn trọng thu vật mẫu các loài cá này, đều phải xin thần linh*].

Mr. Dung (Elder): "In relation to this forest, there are many Gods, the rain spirit pressing harmonious rain and wind, and good harvests; pest spirit preventing pest

damages and so forth . . .” [*Về khu rừng này, có nhiều thần trú ngụ trong đó. Thần mưa, thần gió, thần đất, thần bảo vệ mụa màng…*].

The forests represented through specific trees or stones are a focus for grieving and asking for help by the villagers. According to the following participants, talking to the forest is a spiritual practice, a cleansing prayerful act. In ritual discussions, people said that part of the content of praying in ritual practices always includes supporting good soil in order to support abundant yield of their farms of villages.

Mr. Din (Adult): “As far as I know, you are from the majority group – the *Kinh* who use pagodas/temples for praying. And the same thing with our sacred forests, if we want something out of the forest then we have to go and talk to them . . .” [*Theo như ta được truyền lại, ở người Kinh các anh có đền chùa miếu mạo thì ở người đồng bào chúng tôi có rừng thiêng là nơi thờ cúng. Nếu như chúng tôi muốn cầu gì thì đến rừng, cũng như các anh đến các ngôi đền…*]

Mr. Cau (Elder): “The “*Nao Long*” ritual has had from a long time ago, started when the first *H’mong* settled here. According to the legend transmitted from the previous generations, the ‘*Nao Long*’ is to pray for good weather and harmonious wind in one hand, help people to be healthy, educated and thriving in other hand . . .” [*Nào Nồng có từ lâu đời rồi, bắt đầu từ khi người H’Mong đầu tiên đặt chân đến vùng này. Theo truyenf thuyết kể lại rằng, Nào Lồng là để cầu thời tiết thuận lợi, thiên nhiên thuận hòa cho sản xuất mùa màng. Bên cạnh đó, cũng là phù hộ cho sức khỏe người dân, có ý nghĩa giáo dục cộng đồng*].

Mr. Chua responded*:* “. . . we pray for the spirits who protect farms, fields, trees, etc. from pests and natural disasters...” when aksed: what is the content of praying [*Chúng tôi cầu để các vị thần bảo vệ sức khỏe, bảo vệ mùa màng và cây cỏ… để không bị dịch bệnh và thiên tai phá hoại*].

When asked “how do you talk to it?” The common response is seeming not to know the answer (Figure 9m & n), and in just follow previous generations, shown by some respondents:

Mr. Din (Adult): “It's just when I was a child I used to ask that same question of my parents, how do you talk to it? He said you just go and talk to it. You just start

talking back to it. That's all I can 100% say. That's why we say, we go in there to, it's sort of spiritual, even going in there is spiritual to talk to the forest, and you start realising the beauty of it. And feeling it . . .” [*Khi tôi còn nhỏ, tôi hay hỏi câu hỏi như thế với cha mẹ mình. Họ đều nói chỉ là nói chuyện như nói chuyện với tổ tiên cha mẹ và ông bà mình. Họ không hiểu giải thích như thế nào, tất cả chỉ nói là như vậy. và từ đó chúng tôi cứ làm theo, đến cầu xin theo dịp lễ, khi có sự kiền gì lớn trong đời. Thực tế khi cầu xin xong thấy tâm hồn thoải mãi, cảm thấy tâm tịnh. Còn đi vào rừng thì thấy cảnh đẹp vô cùng*].

Mrs. E Leo (Village Patriarch): “During my childhood we never went to the hospital. I only went to the hospital to give birth when I was older. If someone had fever, it was the natural herbs and shrubs they used…maybe they would inhale the fumes or make an amulet…People even used to recite the *B'Hu* until God gave them relief… There was not hospital in those days . . .” [*Suốt thời thơ ấu của tôi, tôi ít khi phải đến bệnh viện. Khi ốm đâu, cha mẹ lại đến nhờ thầy trong làng, người vào rừng thiêng xin cây thuốc về chữa trị cho người bị đau yếu…Mọi người hay nhắc đến thần B'Hu…vị thần giúp việc chữa bệnh…Nói chung thời đó bệnh viện trong vùng cũng không có mà đi…*]

Figure 9m: *Nao Long* ritual

Source: Photo taken by author on 9th April 2014.

Figure 9n: Pagoda of *Kinh*

Source: Photo taken by author on 9th April 2018.

When participants talk about the power of sacred forests, many know at least one relevant legend to tell. These legends have an enduring power to affect people through their retelling

and, over time, to become cultural monuments. They retain this ability through ongoing oral traditions carried on by elders in the community, and through their presence as tangible referents to the landscape. The sacred forest grandeur are features that so visibly dominate the sky of the surrounding mountains, and when combined with the timelessness of the oral traditions of the people, they produce a grandeur that becomes embedded in the imaginations of locals about the forests. In effect, the forests are emblematic of the ethnic culture in the two participant groups. The importance of the stories associated with them as a part of their history and identity are reflected in the following examples. *Miao* legends describe *Nao Long* sacred forests as the repository for the spirit (*suc manh sieu nhien)* or life force of a deeply caring woman who was entrusted by the transformer to be the eternal guardian of the *H'Mong* people:

> Mr. Minh (Young Adult): "Like this whole forest here, carries the spirit and that spirit is of a woman and this spirit here is for all the people in the *Lung San* village. She overlooks, she looks after the people, her name is *Nao Long*, that story, there's a lot to it, there isn't just one story that's told. Through her lifetime before her spirit was put into this forest to help the people, she had done a whole lot, so she spent time travelling all through the different families and healing people, bringing medicines to them, and helping them. She was just always helping people, going from family to family where ever she was called upon she would go and help . . ." [*Như khu rừng thiêng này là nơi ngự trị của một cô gái, và cả thôn Lùng Sán từ bao đời nay theo và thờ cúng. Cô ấy giúp mọi việc từ sức khỏe người dân đến mùa màng. Tên cô trùng được lấy làm tên lễ hội, "nào Lồng. Cuộc đời cô được thần linh cao cấp hơn giap cho chăm lo người dân vùng này. Cô biết được mọi loại cây thuốc trong rừng, tương ứng chữa bệnh gì. Cô là vị thần sẽ chỉ bảo và cho phép thầy thuốc vào rừng để lấy cây thuốc về. Cô truyền lại bào thuốc cho người đó*].

> Mr. Alin (Adult): "In responding the question of there was a big tree fell down, Mr. Alin said that there fell down the sacred…that was a kind of bad news. The leader is going to organize a meeting for the whole community to explore what was happening with the tree. It is the oldest tree, more than 600 years old . . ."

[*Khi cây trong rừng thiêng tự nhiên bị ngã, hoạc chết do sét đánh hay mưa bão là một dấu hiệu không tốt đến với dân làng. Cứ mội lúc như thế, hội đồng già làng cúng trưởng thôn sẽ họp lại đển bàn làm lễ cầu xin giải hạn. Và đó thường diễn ra ở cây gỗ nghiến hơn 600 tuổi*].

Question: "Which place in the forest do you feel the most power, energy…?" *Mr. Bhua* (Adult): "Ah where we have the sacred area and also something… The oldest tree is very interesting, we feel more power by standing under her shade . . ." [*Khu vực cây to nhất của rừng thiêng là rất đặc biệt…..Ở đó mọi người sẽ cảm thấy có gì đó sức mạnh phi thường khi đứng ở dới tán nó*].

Mrs. Lin (Adult): "I took leaves for fodder. The priest's son too took some. He had a bad fall. Since I too took leaves….my cattle got worms. Such impediments do come…if we use anything from here. We have experienced it. Once we fetched some herbs from here. That day my cow fell prey to a tiger. Such things happen. What more do I say . . ." *Tôi hay hái lá thuốc trong rừng để chữa các vết thương cho đàn gia súc của mình. Tôi làm thế sau khi đã xin phép và hướng dẫn của thầy mo. Thầy mo bận thì ủy quyền con trai dẫn tôi vào rừng. Thầy mo cũng hưỡng dẫn để sao cho gia súc tránh được sự săn bắt của hổ, và các thú ăn thịt khác*].

Another tradition is named "*xem chan ga*" (looking at chickens legs"). The *H'Mong* community believe that legs of the chicken used in rituals can give a hint to what will happen to the village in that year, as well as the way the forest should be managed. Legs are read based on the number of "holes" in the legs, which only the fortune teller is capable of knowing how to evaluate, as well as interpreting their meaning. This is carried out ancillary to the main part of the ritual being finished (see Box 9a for further information).

Box 9a: A description about "*xem chan ga*" legend

After the *Nao Long* worshipping ceremony, a spiritual leader will forecast the number of days that the village community should not interfere in the forest, to "leave it to rest safely" by looking at a chicken's legs. The number of holes in the bones of a *chicken's leg* is equal to the number of days the forest must be left alone. During those days, villagers

are completely prohibited from touching the land and forest, ploughing, producing, clearing land or collecting fresh leaves. Thespiritual forests that are considered to be forbidden by the community are strictly protected, even collecting firewood is not allowed, because they serve as a sacred space for spiritual and religious practices and protect the water source for the community.

Source: Field notes, 2017.

There is a legend related to the *Lung San* village. The *H'Mong* people of *Lung San* village believe that the gods of their *Nao Long* sacred forests supported them in wining a war against an invasion by the *Chinese* in 1979. This war was part of the Sino-Vietnamese War (Vietnamese: *Chiến tranh biên giới Việt-Trung*), also known as the Third Indochina War. It was a brief border war fought between the People's Republic of China and the Socialist Republic of Vietnam in early 1979 (Elleman, 2001). As explained by elderly informants, the villagers had lost many battles over 8 years before finally winning as a result of praying to the gods of the sacred forest. Since that time, they believe that the gods of the sacred forest are able to protect them from invaders, thus maintaining centrality of the sacred forest as a place of worship until now for the local people. A similar legend about a spiritual sword was also told by most of the elderly participants (Box 9b).

Box 9b: Legend related to history of the *Lung San* village

H'Mong …we say people came from the south. We don't know exactly. They travelled along the border between Vietnam and China by horse and it was windy day, they were travelling north. The time when they arrived was the time of afternoon prayers (*cung rung*). They also wanted to pray, so one of them got off his horse (with his sword). It was the evening and the wind was going out slowly. While he was praying, the *Kinh* man kept looking to the side… The water of the river nearby was flowing out. While he was praying the wind kept disturbing his prayer mat so he…took his sword and laid it on the mat to stop the wind turning it over. As he prayed, his sword got covered up by the mat. When he had finished…he pulled up his mat and ran to the horse so that he was not left behind. When he reached the horse, he turned round and said "Aah I have forgotten my sword (*thanh kiem*)!'

He got off the horse and returned…"chwa chwa chwa…" (sound of the water). When he got there, he looked and looked but could not find it. But what had happened was that the sword had fallen in the river before…he reached the horse. He continued to search and all the while…the tide was going out. He started to shout "*guom cua toi, guom cua toi*!" (my sword, my sword!). His friends were waiting for him and worried about getting late for the next move…he couldn't find it. While all of this was happening, a local man was harvesting wild fruits. When the *Kinh* man had gone, he found the sword, but he did not touch it. At this time it was only the "rulers" who could have swords. He looked at the sword saying *H'Mong*! This must be what he was looking for". He went to call the village elders to see it. They came and they said "Aaaah, we must not touch this!' At this time, if something was found, it had to be taken to the Council Of Elders. So they decided to dig a hole and bury the sword. Later, the elders built a hut there. Over there in the north by the old hospital. That is the origin of *Lung San*. The place is until this day. There used to be a big village. Now there are…many graves. There are many trees and it is a place of spiritual worship.

Source: Field notes, 2017.

Summarizing remarks

Sacred forests are "special spaces" for Vietnam's ethnic minority groups, which fulfil meanings and personal and cultural identities, spirituality, and social connectivity. For local people, these values are understood independently, and these values also relate to each other. The cultural value of sacred forests is equally used as an indicator of the identity of local people, making "who they are" through differentiation with other ethnic groups in Vietnam. This is rooted in what people directly stated, the number of people making this claim, and the ways in which they practice within their sacred forests. Also, through stories and rituals associated with the forests, are part of the social traditions of the people that also anchors their identities in their spiritual traditions.

This section shows that "sharing" (*chia se, dung chung, cua cong*) is a key behaviour that reflects the social benefits that sacred forests in Vietnam bring to their communities. Through

sacred forest management and utilization of work, local people are more united culturally and collectively socially, communually and intellectually. For example, local people always collectively share work in relation to preparation of cultural activities related sacred forests, by jointly preparing space for the ceremonies; sharing food used in the ceremonies; having parties after the ceremonies.

In line with definitions about spirituality in some existing studies (eg. Winter, 2007; Lewis & Sheppard, 2005), the ethnic minority groups in this field study believe a supernatural entity exists in their sacred forests. This is consistent with Lewis & Sheppard (2005) indicating that conceptions of the local on spirituality is deeply rooted in ancient narratives and myths that describe the land as a gift from the Creator, and is for the material and spiritual benefit of people and their human and nonhuman neighbours. A more generic spiritual entity as indicated in Winter (2007) encompasses mainstream formal religions such as Christianity.

Significantly, few studies use the three terms “social”, “cultural”, and “spiritual” as independent concepts while discussing the intangible values of natural resources and local knowledge (eg. Rutte, 2011; Johnston, 1992; Sukumaran et al., 2010). These three terms are used as independent concepts in many other studies (eg. Clark, 2011; Winter, 2007; Negi, 2005). However, those studies indicate a lack of research in explaining why they are sited as independent concepts. For example, Negi (2005) criticizes “social” significance of sacred forests that have not been studied in depth. “Spiritual” significance is a broad awareness, but lacks an overall definition as argued by Clark (2011). Many sources including Bayrak & Marafa (nd: 4) indicate that “the sacred or spiritual dimension has often been overlooked by scholars studying traditional ecological knowledge and practices”.

The intangible significance of sacred forests are only understood independently in terms of social, cultural, and spiritual, but forest management policies and programmes relevant to sacred natural sites and local people, need to include these different measures and include their significance. Chapter 4 (Section 4.4) justifies relativism as a philosophy that is promising. As sacred forests are significant culturally, socially and spiritually to the local people who treat the forests with respect. This behaviour Hoang (2014) indicates is about forest management in Vietnam that is in line with "*văn hóa*" (culture), "*đạo đức*" (moral/ethnical), "*tình*" (love).

9.5. Conclusion

Supporting existing studies, this chapter generally shows that sacred forests are in many respects the same as other forests (eg. protected areas, planted forests etc.), and they provide local people with benefits economically, environmentally, and culturally, which are classified by Assessment (2005). Recognizing these benefits for local people is significant as argued by Allen (2010), because without knowing the values, beliefs, social norms, and experiences that combine to form a certain attitude, it is hopeless to respond to public demands, or to explain the effects of alternatives on resources and opportunities people care about. Under interpretivism's lense, it is evident in this chapter that benefits are reflected differently.

The three main sections accumulate evidence that values of sacred forests are perceived differently by people with different demographic characteristics. For example, the conclusion in Section 9.2 is that economic benefits of sacred forests is different between communities as well as individuals. Section 3 shows the challenges of local people in recognizing some aspects of the environmental values of sacred forests, given that the broad knowledge of local people is minimal. In this regard specifically, it implies a need to diversify specific techniques to understand different environmental values that sacred natural sites and forests can bring to local people.

As discussed in Chapter 4, understanding the concepts relevant to sacred natural sites and forests is culturally contextual. It however is evident in this chapter, that sacred forests in Vietnamare contextual in non-cultural aspects, such as livelihood generation and environmental contribution. As concluded in Section 9.2, utilization of sacred forests depends on the availability of resources from non-sacred forests, such as plantations, individual forests, and forests owned by the state. In the absence of these alternative sources, sacred forests are more likely to be economically exploted by local people, including generating incomes, collecting fire-wood and fodder. Therefore, two implications are made, the first, recognize the significance of sacred forests needs to be redirected toward emphasizing the connection of these places to the landscapes surrounding them. The second, government policies and conservation programmes for the management of these places needs to focus on supporting alternatives in order to help conserve biodiversity and the culture of local communities.

It makes it more clear in this chapter that sacred forests are different to each other in terms of their cultural significance. For example, Section 9.2, shows economic benefits are different between communities as well as sacred forests. As demonstrated in the section, "*Nuoc Giot*" sacred forest is more significant to its villagers in providing livelihoods than compared that to "*Nao Long*" and "*Thu Ty*" sacred forests.

Furthermore, this chapter shows that within a sacred forest, local people perceive economic, environmental, and cultural benefits differently. In this regard, culture always dominants over the others. In line with this, Gopal (2018) indicates that people's cultural and social processes shape sacred forests through protection, conservation and sustainable management practices.

Moreover, Section 9.3 shows that sacred forests are "special spaces" for Vietnam's ethnic minority groups, with special meanings, that retell their personal and cultural identities, and spirituality, and social connectivity. Under perspectives of the local people, these values are understood independently, which both align with and challenge existing knowledge about recognsizing social, cultural, and spiritual significance of these natural resources. On the one hand, discussion in Chapter 4 shows numerous writings that do not connect the three terms "social", "cultural", and "spiritual", but are used as independent concepts about intangible values of natural resources and local knowledge.

This supports many existing studies in viewing these terms as independent concepts (eg. Wiersum, 1997; Miehe *et al*., 2003, Berkes, 2008, citing in Bayrak & Marafa, nd). As discussed in the Chapter 4, some studies argue for more detail in exploring intangible values of natural resources. Academically, this finding supports the current debate that the "social" significance of sacred forests is not being studied in depth Negi (2005). "Spiritual" significance is a broad awareness, but overall lacks of definition as argued by Clark (2011).

Chapter 10
Sacred Forests in cultural conservation and Natural Resource Management

10.1. Introduction

Chapters 7, 8, 9 have addressed the main questions of this research what does "sacred forest" mean, how diverse are they, and what benefits they offer. In support of this chapter, Chapter 9 shows benefits of sacred forests in terms of economic, environmental, and cultural aspects, however, this chapter shows more insights into the cultural aspects of sacred forests and how they form and maintain culture of ethnic minorities and Vietnamese people. Importantly, this chapter also shows the effect and effectiveness of the ways in which ethnic minorities manage and use natural resources and forests. Especially, this chapter explores why ethnic minority practices are exceptional when comparing their forest use strategies and attitudes to the model of forest management used by the Government of Vietnam.

10.2. Cultural conservation

Connection between local people, their ancestors, gods, and nature

Sacred forests are crucial in forming and maintaining the culture of "respect" that ethnic minority people have in Vietnam. This culture is reflected in many layers of interconnection between and within local communities and between humans and nature. In the first layer, younger generations connect to the elder generations, and to their ancestors through learning from them. Local people communicate with gods in the forests through an intermediary, a responsible person such as the village patriarch, the village head and people who are members of elder council. Therefore, ethnic minority people in Vietnam connect to forests, not only because of their material needs, but also their belief in and respect for the gods residing in the forests.

Vietnamese's culture has a studious element, also a strong allegiance to family, and a desire for reputation, respect, and harmony (Nguyen, 2016, cited in (Kawaguchi-Suzuki, et al., 2019). These traits are embodied in the act of giving deep respect to their ancestors (Fisher,

2018, cited in Kawaguchi-Suzuki, et al., 2019). How respect is thought about and represented in rituals is a result of influences from Vietnamese culture and a hybrid modernity, encompassing both colonial and socialist elements (Kawaguchi-Suzuki, et al., 2019; Lap & Truc, 2014; Le, 2001; Wilcox, 2010; Raffin, 2008; Gadgil et al., 1993). The culture of ethnic minority communities is ritualised through ceremonies relating to and performed in sacred forests. In these activities, the elderly teach younger generations about their culture, including respect to ancestors. This role of sacred forests in maintaining culture are indicated in many studies, which claim places that are considered sacred, often provide a physical space for connecting people, emotionally, imaginatively and spiritually to their ancestors (Verschuuren, 2010; Randrianarivony et al., 2016; Lewis & Sheppard, 2005; Eleanor, 2017). Below are some responses indicating this:

> Mr. Diep (Provincial Officer): "Young generation is reminded to preserve their cultural identity and local tradition and to protect the forest" [*Thế hệ trẻ được nhắc nhở để bảo vệ cái bản sắc văn hóa và truyền thống của làng trong việc bảo vệ rừng*].

> "Most importantly, the spiritual leader reads aloud the rules that the whole community has to follow: no cutting down trees or picking fruits in the forest, how to till the field properly and so on . . ." [*Quan trọng là khi người có uy tín đọc các quy ước ửng xử thì cả thôn làng gnhe theo, ví dụ như không được chặt phá rừng hay thu lượm lâm sản phụ trọng rừng, hay không được đại tiểu tiên trong rừng*...]

Local people use an intermediary to communicate with gods in the forests and these people are called "*co´ uy*", a term used to indicate a leadership capacity in *Vietnamese* society, especially ethnic minority villages. Truong & Hallinger (2017) describes this as a combination of using legitimate and moral authority in order to achieve subordinates' obedience, trust, respect, commitment and emulation. In the country generally, village headmen are elected directly by local people, usually citing the personal qualities of candidates such as virtue, trustworthiness, integrity and knowledge, rather than specific electoral promises or platforms (Malarney 1997, Shanks et al., 2003, citing in McElwee, 2006). In Vietnam's ethnic minority communities, the patriarchal leader is called "*già làng*",

and is usually the wealthiest or most powerful member of the council of elders (Kurfürst, 2012). A council of elders is called "*hội đồng già làng*" and consists of the heads of each lineage (Minh et al., 2016). Each village consists of one or more lineages. Within each lineage, authority rests with the eldest male member (Nguyen, 2001, citing in Minh et al., 2016).

> Mr. A Leo (Elderly male): I am an elder of *K'Bay*. I am the senior custodian of all the sacred sites of *Bahnar*. I have the main responsibility for these places… [*Tôi là thầy mô của làng K'Bay. Tôi như những người cựu binh bảo vệ rừng của những điểm tâm linh của người Bahnar ở đây*].
>
> Mr. Chùa (The Patriarch of *Lung San* village): I am the custodian of the site called "*Khuma*"; I inherited this responsibility from my parents, my father *Sung Seo Lin*; he used to help people. I assist people with their problems at the cave known as "*Khuma*". The meaning of "*Khuma*" - a place where you can bring all your problems…and they will be solved… [*Tôi là người trông coi kh vực thiêng tên là "Khuma"; tôi kế tục nhiệm vụ này từ đời cha ông tôi, cha tôi tên là Sung Seo Lin; ông dạy tôi tất cả. Tôi giúp mọi người trong làng bằng cách thờ cũng tại khu "Khuma". Ý nghĩa của từ này là địa điểm mọi người có thể xin phù hộ khi khặp khó khăn, và thường sẽ được thâtnf linh giúp ...*].

There are a wide range of indicators that support this belief. Some respondents told stories about gods in the forests, others talk about the super power of gods such as creating the universe, protecting forests, supporting agricultural crops, bringing good health and prosperity to villagers.

> Mr. Minh (Young Adult): "Like this whole forest here, carries the spirit and that spirit is of a woman and this spirit here is for all the people in the *Lung San* village. She overlooks, she looks after the people, her name is *Nao Long*, that story, there's a lot to it, there isn't just one story that's told. Through her lifetime before her spirit was put into this forest to help the people, she had done a whole lot, so she spent time travelling all through the different families and healing people, bringing medicines to them, and helping them. She was just always

helping people, going from family to family where ever she was called upon she would go and help" [*Như toàn bộ khu rừng này, giữ linh hồn của một công chúa bảo vệ toàn bộ thôn Lùng Sán. Cô chăm lo, che chở mọi người trong làng, tên cô là Nào Lồng, co niều câu chuyện kể về điều này, không chỉ một vài chuyện đâu. Chuyện về toàn bộ cuộc đời của cô, trước khi linh hồn cô được giao trú ngụ trong khu rừng này. Cô có cả cuocj đời đi giúp đỡ người nghèo, bênh tật… vì thế nên thần giao cho cô trị vì một khu rừng quan trọng này. Cô sinh ra là mang sứ mạnh giúp đỡ mọi người khắp trong vùng*].

Mr. Din (Adult): "People come to me to seek help from the *Mơ Nia*. The *Devta* helps them. (How does the *Mơ Nia* speak through you?) He is like a breeze that flows by me for a few moments. When it goes away, I am just the same – just as you are…We have made the temples now. But the *Mơ Nia* dwell in the jungles. They don't need temples. Humans built temples for their own pride. The *Mơ Nia* says that just as you look after your children, these forests are like mine…so don't harm them" [*Người dân thường đến khu rừng để xin phù hộ từ thần tên là Mơ Nia. Thần Mơ Nia được giao trị vì khu rừng là để giúp dân làng. Ngài như ngọn dó, có thể bay khắp khu rừng, thấy được mọi hành động của người đi vào rừng. Khi ngài nhập vào hồn người dân, họ trở nên mạnh mẽ với sức mạnh siêu nhiên. Vì thế chống chọi được bệnh tật, được soi đường chỉ lối trong làm nương rẫy. Để tưởng nhờ và thờ cúng Ngài, người dân lập miếu thờ. Thần Mơ Nia cũng quan tâm đặc biệt đến trẻ con và người già, vì họ là đối tương yếu hơn*].

He continued: "Actually that is because we believe that in this forest a deity resides here I mean a god resides here. That the deity name is *E Mo* that god resides in this forest protecting this forest and punish anybody tried to do harm to this forest. Means I just if you try to take anything in all then that deity will punish that person" [*Người dân làm như vậy vì họ được truyền dạy từ đời trước là vị thần đó cùng một số vị thần khác trú trong rừng. Ví dụ như thần E Mo thì trông coi việc xử phạt những người vi phàm khu rừng cũng như cư xử không đúng trong cuộc sống. Thần thực hành quyền năng của mình qua người có uy tín trong làng*].

Mr. A Leo: "The *H'Mong* people really believe in Gods. Every year, we hold 3 ceremonies to pray for blessings throughout the year. In the 1st lunar month, we plough the field and pray for a year of fortune. In the 3rd and 7th lunar month, we grow crops and pray for bumper crops. We believe that the Forest God will protect us everywhere we go and bring us good luck" [*Người H'Mong đặc biệt tin vào thần linh. Hằng năm họ tổ chức cúng rừng 3 lần để cầu may và cầu an cho năm đó. Lần thứ nhất là 01 tháng 01 âm lịch, họ cúng để khởi mùa làm rẫy. Đến 03 và 07 tháng âm lịch, họ gieo hạt và bón phân. Họ tin là thần rừng bảo vệ họ mọi lúc mọi nơi*].

In line with studies in other countries (eg. Kquofi & Glover, 2015; Sarfo-Mensah et al., 2010), ethnic minority people believe in the existence of many gods in sacred forests. Each god has its own role, for example there are gods in charge making rain to support agricultural crops. Below are responses that reflect this belief:

Mr. Sau (Elder): "This is Goddness *Amu*. The Goddness lives in this forest…since our ancestor's time. This place belongs to her, it is fixed since old times. If we worship her…we can roam freely in the whole forest. Nothing will happen. Since old times we have gods like… *Tkai*, *Miengmen* and alike…on the hills. Gods like *Bhu*…*Vanua* …are there. Every time there's an epidemic or diseases…we promise her a goat or a cock…and it is sheer cure. The God is everywhere… At the origin of river *Poko* also…there is a Goddness called *Etia"* [*Đây là thần Amu. Vị thần này ngự trị đây từ xa xưa. Bà được giao ngự trị đây để chăm sốc cho vạn vật ở khu vựa này và lân cận. Nếu ta cầu xin bà, cuộc sống sẽ tránh được nhiều rủi ro tật bênh… Ở đây cũng có nhiều vị thần khác như Thai, Miengmen và tương tự…ở trên các ngọn núi khác nhau. Ví dụ như thần Bhu…Vanua…ở trên đó. Mỗi khi có dịch bệnh thiên tai, chúng tôi làm lễ cúng bà bằng gia súc, hương hoa quả…. Bà sẽ giúp giải quyết mọi chuyện Ở đây thần linh trú ngụ khắp nơi. Ví dụ khác như song Poko có nhiều thần trị vì cá khu vực khác nhau*].

Mr. Dung (Elder): "In relation to this forest, there are many Gods, the rain spirit pressing harmonious rain and wind, and good harvests; pest spirit preventing pest

damages and so forth" [*Trong rừng có rất nhiều thần linh, như là thần cho mưa, thần bảo vệ gia súc.... Mỗi thần sẽ được thờ cúng theo những nghi lễ và lễ vật khác nhau*].

Social bond (family and communnity)

As discussed in Chapter 9, "sharing" (*chia sẻ, dung chng, của công*) is a key idea that reflects the social benefits that sacred forests in Vietnam bring to their societies. Through sharing sacred forest management and utilization of work, local people are more united culturally, socially and intellectually. This section shows a diversity of activities related to the rituals and ceremonies, the "carrying vehicles" that connect people to people as a society. This section discusses another benefit that cultural activities related sacred forests bring to local people.

Reflecting the culture of many other indigenous communities in the world, collectiveness, or communality, or sharing is another distinct feature of minority people's in Vietnam. Maintaining the sharing element of their culture is significant because this is reflected in and supports Vietnamese's culture of studiousness, allegiance to family, desire for reputation, respect, and harmony (Nguyen, 2016, cited in (Kawaguchi-Suzuki, et al., 2019). How this is practiced today is a result of influences from a combination of Vietnamese culture and a hybrid colonial and socialist modernity (Kawaguchi-Suzuki, et al., 2019; Lap & Truc, 2014; Le, 2001; Wilcox, 2010; Raffin, 2008; Gadgil et al., 1993). To agrarian *Senufo*, walking and working together is a daily practice (Förster, 2019). Similarly, collectiveness is the core element of *Maori*'s three principles *Kawa, Tikanga*, and *Kaupapa* in living in harmony with nature (TEDx Talks, 2016). Below are some responses indicating this cultural element:

Mr. Hong (District officer): "All local villagers are united and protect the forest with a high sense of awareness" " [*Tất cả người dân làng rất đoàn kết để bảo vệ và nâng cao ý thức về rừng*].

Mr. Ha (Adult): "Forests belong to communities" [*Rừng thuộc sở hữu toàn bộ người dân trong làng*].

"Villagers have their conventions" (Adult woman) [*Người dân có hương ước riêng về bảo vệ rừng*].

Summary remarks

Sacred forests are crucial in forming and maintaining the cultural elements of "respect" in ethnic minorities in Vietnam. This aspect of their culture is reflected in many layers, including people to people (younger generations to the older ones, and to their ancestors), and human to nature. In relation to people to people, this is significant in maintaining Vietnam's collective culture, which practices showing deep respect to one's ancestors (Fisher, 2018, cited in Kawaguchi-Suzuki, et al., 2019). This modern version of Vietnamese culture draws on traditional practices and a hybrid modernity, encompassing colonial and socialist modernity (Kawaguchi-Suzuki, et al., 2019; Lap & Truc, 2014; Le, 2001; Wilcox, 2010; Raffin, 2008; Gadgil et al., 1993).

In relation to the human to nature element, this resembles many other studies that claim sacred places often provide a foundation for connecting the human and spiritual worlds (Verschuuren, 2010; Randrianarivony et al., 2016; Lewis & Sheppard, 2005; Eleanor, 2017). In this regard, ethnic minority worldviews demonstrate a balanced, healthy and sensitive way for people to co-exist with their natural surroundings, through their acknowledgement and gratitude given to the natural world. They believe that people should show respect, honour, toward the physical and spiritual worlds and thankfulness for the wellbeing this generates.

As in the culture of many other indigenous communities around the world eg. *Maori* people (TEDx Talks, 2016), and aboriginal communities in Australia (Sangha et al., 2018), the high degree of collectiveness, or communal sharing is quite distinct in the culture of ethnic minority people in Vietnam. Their guiding philosophy is based on a collective aim and communal goal, that dreams and visions inspire them to achieve and this unifies them. In a contemporary context, this is the wellbeing and prosperity of their village, and their family. This collective belief and value is vitally important because they inform attitudes and behaviour, and ensure whatever endeavour that takes place, is done so in an ethical and moral way. Collective beliefs and values are vital in village life because members may be from different family groups, but by sharing this common ideal they engage with skill and ability and in the same way.

In line with definitions of spirituality in some existing studies (eg.Winter, 2007; Lewis & Sheppard, 2005), the ethnic minority groups in this field study also believe a supernatural entity exists in their sacred forests. This is more consistent with Lewis & Sheppard (2005), who indicate that conceptions of the local on spirituality are deeply rooted in ancient narratives and myths that describe land as a gift from the Creator. This has material and spiritual benefits for village people and their human and nonhuman neighbors.

While the *Kinh* people have pagodas, temples and communal houses as places to worship sacred spirits and a repository for their religious beliefs, ethnic minority people have sacred forests, waterholes and stones as the places to practice their beliefs and reinforce cultural identity. They build shrines in sacred forests to worship the Forest God. In line with many studies in other countries (eg. Ongugo et al., 2016; Ongugo et al., 2016), some responses liken sacred forests as temples. Globally, sacred forests percieved as "the first temples of worship" in the world (Varner, 2005, citing in Deb, 2007). The following responses confirm this:

> Mr. Din (Adult): "As far as I know, you are from the majority group – the *Kinh* who use pagodas/temples for praying. And the same thing with our sacred forests, if we want something out of the forest then we have to go and talk to them" [*Như tôi được biết, ở dưới xuôi các anh, người Kinh có đình chùa miếu mạo để thờ cúng. Ở đồng bào chúng tôi cũng vậy, cũng thờ cúng, nhưng thông qua hệ thống rừng thiêng* …]
>
> Mr. A Thút (Patriarch): "Where there's a village, there's a temple for shrine in worship of sacred spirits, who bless the villagers with prosperity, peace and good health" [*Ở đâu có làng bản là ở đó có miếu thờ, thờ những vị thần chăm lo cho bà con trong làng bản đó. ở đồng bào chúng tôi, đó là các khu rừng, hang động...*].
>
> Mr. Minh (Young Adult): "The sacred spirits we worship are just like the ones that people worship in pagodas. They are considered as Gods, who create the universe" [*Các vị thần chúng tôi thờ cúng giống với các vị thần ở các ngôi đình chùa ở miền xuôi. Họ là thần linh tạo ra vạn vật*].

The likening sacred forests as "temples" is significant because sacred forests are used as meeting places for local people to make important decisions on matters pertaining to the

welfare of the entire village or chiefdom, which indicates they are repositories of culture (Schelhas & Greenberg, 1996: 311 - 312). The importance of the role of sacred forests in thinking about cultural conservation globally as well as in Vietnam is indicated in the number of these "temples.This significance is discussed in Chapter 8 (Section 8.6) which notes that most villages have at least one sacred forest (Schelhas & Greenberg, 1996), and Vietnam has thousands of villages, therefore the number may be more than 10,000.

On a global scale, sacred forests are important because they belong to indigenous communities who represent 95% of the world's cultural diversity (Sobrevila, 2008; Stevens (2014). In Vietnam, the scope of cultural diversity is reflected in 14% of the total population belonging to 53 ethnic minorities (GoV, 2012). Furthermore, 8.9% of tolerated customary management of ancestral land is owned by the State, and many parts of these forests are managed by around 10,000 mostly ethnic minority communities (Balooni & Inoue, 2007). Kim Dung et al (2017) indicates up to 80% of forests are inhabited, either by communities who have historical claims on the land, or by those who encroach on buffer areas (cited from Cuong et al., 2009), the maths of these claims shows the sheer impact of forests on significant numbers of people and communites and diversities of culture.

10.3. In relation to forest management

This section shows the effectiveness of the ways in which ethnic minorities manage and use natural resources and forests. Especially, it shows this exceptionality when compared to the model of forest management used by the Government of Vietnam. Through examples of customs and taboos related to the management of sacred forests, ethnic minority people show that the principles of "equality" and a "non-monetary based" economy are very important in sharing benefits and making contributions to the management of natural resources and sacred forests. Also, customs and taboos related to sacred forests of ethnic minority people have a high legitimate and moral authority, which has potential to achieve subordinates' obedience, trust, respect, commitment and emulation. Furthermore, customs, and cultural activities related to sacred forests have educational significance to ethnic minority people.

Equality

To ethnic minority people, principles of “equality” and “non-monetary based” economics is important in sharing benefits and contributing to the management of natural resources and sacred forests. Through the principle of equality in sharing benefits, forest dependent groups become aware of their responsibilities in contributing to the work related to forest and natural resource management. In relation to the principle of non-monetary contributions, all material objects are diverse and familiar to the daily life of the people, ranging from honey, incense, goats, and pigs etc. Using these for exchange is significant when it is not suitable to ask villagers to contribute money in an virtually cashless economy.

As indicated above, local people can make their livelihoods from sacred forests and other forests classified by the State such as watershed protection forests, and production forests. This benefit is relatively fairly shared, and guaranteed by a scheme related to accessibility of the forests. This scheme defines the time that the forests are opened annually. Also, it defines the number of people in each family allowed access to the forests. Below are some responses indicating fairness in access to resources and sharing of benefits among the community.

> Mr. A Sung (Elder): “They can take advantage of the forest resources, especially of a special type of bamboo growing in the forest. The forest is opened only one or twice a year. According to the rules, no matter how many people there are in your family, only 2 members are allowed to enter the forest within 2 or 3 days. After that, going into the forest is forbidden” [*Người dân có thể hưởng lợi từ rừng, qua những lâm sản phụ như măng, rau rừng.... Nhưng rừng chỉ mở cửa vài lần trong năm. Theo quy ước của thôn làng, mỗi gia đình chỉ được 2 người vào rừng, không phân biệt gia đình đông hay ít người. Và số ngày vào rừng chỉ khoảng 2 đến 3 ngày. Sau đó là cấm hoàn toàn*].
>
> Mrs. Sen (Adult): “Villagers have fair benefits from the forest. For example, the forest jointly collected by the people in Den Sang commune, Bat Xat district, Lao Cai province is strictly protected. The forest is opened only once or twice a year and each opening lasts no more than three days. Local villagers are allowed to enter the forests on those days to get definite quantity of firewood and a special type of bamboo” [*Người dân làng có quy ước về công bằng trong chia sẻ lợi*

nhuận từ rừng. Ví dụ như ở thôn khác, Dền Sáng, huyện Bát Xát, thì rừng lại bảo vệ rất nghiêm ngặt, không ai chia sẻ gì cũng là một giạng công bằng. Nhưng ở thôn chúng tôi, người dần được chia sẻ theo định kỳ, với số lượng người và sản vật cụ thể].

As indicated above, the culture of collectiveness, communality, and sharing, is especially obvious to ethnic minority people when contributing to forest management. For minority groups, sacred forests are the common property of villages and in forest protection, they are unitedjoining hands, in their customs and taboos, which are collectively designed by all villagers, not specific individuals as indicated in the following:

Mr. Sau (Elder): "Forests belong to communities" [*Rừng là thuộc sở hữu của mọi người dân trong bản*].

Mr. Ha (Adult): "The whole community can manage the forest equally, not any single household or individual" [*Toàn bộ người dân có quyền và nghĩa vụ bảo vệ rừng thiêng và rừng tập thể khác*].

Mr. Dung (Elder): "All members of the community should join hands together to protect their community forest"[*Toàn bộ mọi thành viên trong cộng đồng nên chung tay bảo vệ rừng*].

Mr. A Thút (Patriarch): "The village convention is collectively designed by all villagers, not a specific individual" [*Hương ước của làng được xây dựng thông qua tập thể, vì thế có tính gắn kết rất cao*].

In relation to contributions of forest management work such as offerings in rituals and ceremonies, is indicated by a range of responses below. When asked why the contributions need to be equal, some respondents replied that local people make contributions equally because this will recieve equal blessings from the gods to everyone.

Mr. A Sang (Elder): "The whole community can manage the forest equally, not any single household or individual" [*Toàng bộ người dân có thể quản lý rừng một cách công bằng, không một ai đơn thân có thể làm được*].

> Mr. Toan (Adult): "All offerings are contributed by the local people. Local households make equal contributions to the ceremony so that they will get equal blessings from the gods" [*Tất cả những sản phẩm thu hái được thì được chia sẻ đều cho mọi người. Họ cũng đóng ghóp một cách bình đẳng trên nguyên tắc về năng lực*].

As discussed in Chapter 8 (Section 8.4), material objects are commonly used to contribute towards activities in sacred forests, such as: field viewing the forests; providing food and basic needs for rituals; or as part of punishments for those who break the rules of their villages. These contributions and and punishments are diverse ranging from honey, incense, goats, pigs etc. One of typical conversations around this is:

> Mr. Ly Seo Chua (The Partriarch of *Lung San* village): "I am the custodian of the site called "*HuaPa*"; I inherited this responsibility from my parents, my father *Ly Seo Toan*; he used to help people. I assist people with their problems at the cave known as "*HuaPa*". The meaning of "*HuaPa*" - a place where you can bring all your problems…and they will be solved. When a person has been cured there is a fee…you can bring honey, you can bring incense, you can bring a goat, a pig… "[*Tôi là người được giao thực hiện các nghi lễ cúng rừng, nơi có tên "Huapa"; tôi kế thừa từ cha tôi, ông tên là Ly Seo Toan; ông từng giúp đỡ rất nhiều người trong thôn. Theo đó tôi giúp mọi người về xin thần linh cho cây thuốc, hướng dẫn cho họ khi vào rừng. Nghĩa của "HuaPa" là địa điểm mọi người vào để ghặp thần linh...Lễ vật chỉ đơn giản như chai mật ong, vài loại hương hao quả...Ai có điều kiện thì cúng cả vật nuôi như lợn, gà …*].

Chapter 8 (Section 8.4), shows that monetary-based contributions are not favoured in payment for the work of protecting and managing sacred forests. This is explained by research informants who think it is not suitable to ask villagers to contribute money when their economy is not based on money. In other words, money is not usually available in the exchanges in these villages. Instead, the informants elaborated the dynamics of a non-money-based currency of the local people:

Mr. Vi Van Sau (Elderly people): "Each village household voluntarily contributes 20.000 *đồng* per year in order to support the protection work of their sacred forests: paying the group of forest guardians organized by the village" [*Mỗi hộ tự nguyện đóng 20.000 đồng hang năm để hỗ trợ công tác quản lý rừng. Công việc hỗ trợ như là tuần tra, làm bờ rào do cũng chính người dân làng thực hiện*].

Mr. A Thut (The Partriarch of *K'Bay* village): "*Bahnar* people contribute to the *Nước Giọt* by providing basic needs such as labour, grazing animals (eg. pigs, chickens)… historically, the contribution are made voluntarily depending on availability of each households. However, in recent years there is the rule issued by the *Gia Lang*, that there are two levels of contribution for each households-depending on the economic condition of the family" [*Người Bahnar tham gia bảo vệ nước gọt bằng cách trực tiếp đóng ghóp công sức, đóng ghóp vật nuôi cho lễ (lợn, gà...)... Trong quá khứ, đóng ghóp là tự nguyện theo nguyên tắc năng lực bao nhiều thì tham gia bấy nhiêu. Bây giờ những quy định đã cụ thể hơn, vì Già làng chủ trì, ban hành các quy định cụ thể. Về bản chất thì vẫn tự nguyện, và coi trọng tính khả thi theo điều kiện các hộ gia đình*].

The principle of equality in the management and sharing the benefits of sacred forests is significant when thinking about this issue in a wider context globally and in Vietnam. Participation of local people is crucial to successful management of natural resources and forests in Vietnam (Danielsen et al., 2009; Shackleton et al., 2002; Ribot, 2002). In the global context, the world still has many inequities and the appalling disparities of health, and wealth, and opportunity that condemn millions of people to lives of despair (Belludi, 2010). One example of sharing global wealth between the rich and the poor, according to Brian (2015: 3) in 2012, the richest 10% controlled half of all total household wealth and the wealthiest 1% held 18%, compared to only 3% of wealth for the poorest 40% of the worlds poulation.

Legitimization

Customs and taboos related to sacred forests of ethnic minority people have a high legitimate and moral authority reinforced through custom, and which has potential to achieve subordinate obedience, trust, respect, commitment and emulation. This is because these

attributes are passed to younger generations through "*co´ uy*" people, such as the village patriarch, the village head, and people who are members of elder councils. Especially, the codes and conduct that regulate activities related to forests are detailed so they are feasible in practice. Effectiveness of the customs and taboos is especially indicated through the linguistic use of "must", and "responsibility".

The codes of conduct related to forests are informally legalized in the mind of villagers through "*co´ uy*" people. "*Co´ uy*" is used to indicate leadership capacity in Vietnamese society, especially in ethnic minority villages, which Truong & Hallinger (2017) describes as a combination of legitimate and moral authority.

> Mr. Điệp (Provincial Officer): "Most importantly, the spiritual leader reads aloud the rules that the whole community has to follow: no cutting down trees or picking fruits in the forest, how to till the filed properly and so on" [*Quan trọng là các buổi tuyên truyền và họp thôn bản, các thành viên trong hội đồng già làng nói thì ai cũng nghe theo. Họ tuyên truyền cho người dân không được chặt cây rừng, xạm phạm rừng trái quy định của làng bản và luật pháp của nhà nước*].
>
> He continued: "For example, a man who cuts down trees in the forest must compensate for his violation of the rules. If it's first-time violation, he will be criticized at the communal house" [*Ví dụ như, nếu ai đó vi phạm sẽ bị xử phạt. Nếu là lần đầu thì chỉ nhắc nhở trước toàn cuộc họp. Các lần sau thì mức độ xử phạt nặng dần, thậm chí bị trục xuất khỏi làng*].
>
> Mrs. Lin Thi Sen (Adult): "We attend the meetings and assemblies related to forest management. We send our children when we are busy. In assembly, issues are discussed like how to protect the forest, how and when to distribute forest products" [*Mọi người tham gia họp được tuyên truyền mọi quy định về quản lý và bảo vệ rừng. Họ cũng được làm rõ quyền hưởng lợi, cụ thể và cách phân chia lợi nhuận*].

Meeting in sacred forests is especially significant in legalizing the codes and conduct in the minds of local people. As one respondent said:

Mr. Ha (Adult): “It’s good enough if the rules are passed to young generation in another environment. However, in the sacred atmosphere of the ceremony, they become more sacred. That’s why they are deeply ingrained in the minds of ethnic minority people” [*Các quy định về quản lý rừng thiêng sẽ tốt bao nhiêu nếu như nhân rộng ra các khu rừng khác, hay địa phương khác. Các không khi buổi họp rất trang nghiêm, có tính thuyệt phục rất cao*].

The codes and conduct used in sacred forests are inclusive of the forests classified and managed by the State, such as watershed management areas and production forests. As indicated in Chapter 5 (Section 5.3), the Government of Vietnam classifies forests into three categories: Production Forests, Protection Forests and Special Use Forests (protected areas) (Vietnam National Assembly Office, 2009; Hoang, 2012). Explainning this, one respondent said:

Mrs. Mua (Adult): “Not only sacred forests but also watershed forests are also strictly protected by ethnic minority people. It is allowed to collect few forest products in watershed forests, but exploiting is restricted. This type of forest is equivalent to the protection forest as classified by the State” [*Không những rừng thiêng mà các khu vực bảo vệ nguồn nước, thượng nguồn lưu vực cũng bao gồm trong quy chế của thôn bản. Mọi quy định có tính lồng ghép, lien quan với nhau cả*].

The effectiveness of the codes of conduct is especially indicated in the language respondents use to talk about their roles. They used strong terms such as “mustand “responsibility”. Below are some responses:

Mr. A Sung (Elder): “Protecting forests and their resources is a must [*Việc quản lý rừng thiêng là bắt buộc với mọi người*].

Mr. Hong (District Officer): “Forest protection rules and village conventions help local villagers improve their sense of responsibility for protecting community forests and reduce the burden on forest rangers” [*Quy chế cấp thôn bản giúp ích cho thực thi lâm luật của nhà nước ở nhiều khía cạnh khác nhau. Nhưng nói chung là rất hiệu quả và hiệu lực*].

Especially, language used indicates time and principles in which local knowledge is generated. This resembles to some extent knowledge generated by indigenous people in New Zealand, *Maori*. According to Curtis Bristowe, indigenous knowledge of *Maori* communities in New Zealand has value and worth, because it is founded upon in different set of principles, including *Kawa*, *Tikanga*, and *Kaupapa* (TEDx Talks, 2016). Historically, sacred forests are thought to have existed as far back as 5,000 years BC, (Verschuuren, 2010; Soury, 2007; Andhra Pradesh, nd). Temporality is indicated in e some responses:

> Mr. Điệp (Provincial Officer): "It is not until now that village forest protection regulations are imposed. In fact, they were initiated a very long time ago" [*Hương ước quản lý rừng thiêng có từ bao đời nay, không phải bây giờ mới có đâu*].
>
> He continued: "Forest protection rules were set up a very long time ago" [*Nó có từ đời cha ông họ, không biết cụ thể là khi nào, vì lâu quá*].
>
> Mr. A Thút (Patriarch): "Don't ever think indigenous knowledge is backward or superstitious. They have been living with the forest for thousands of years now and have developed fine behaviors towards it" [*Đừng nghĩ người bản địa, người địa phương là lạc hậu, là ghánh nặng của nhà nước. Họ sống lâu, đúc rút kinh nghiệm hang bao đời, vì thế là rất đúng và sát với thực tiễn*].
>
> Mr. Dung (Elder): "Every ethnic minority group has their own rules. Rules were set up a very long time ago and they demand unity" [*Mọi người dân tộc thiểu số đều có quy tắc riêng của cộng đồng họ. Quy tắc được thiết lập từ nhiều đời rồi*].

Especially, codes of conduct regulate activities in the forests, including times to access the forests, what can and can't be done in utilizing the forests, and forest management. These activities are detailed and reflected in a range of responses below:

> Mr. A Leo (Adult): "This forest is managed and protected by the locals. They can take advantage of the forest resources, especially of a special type of bamboo growing in the forest. The forest is opened only one or twice a year. According to the rules, no matter how many people there are in your family, only 2 members

are allowed to enter the forest within 2 or 3 days. After that, going into the forest is forbidden" [*Rừng được quản lý và bảo vệ bởi người địa phương. Họ có thể thu nhập từ nguồn trong rừng theo nguyên tắc bền vững. Họ chỉ thu nhặt lâm sản phụ như mây, tre, măng, các loại rau rừng. Mỗi gia đình chỉ được 1 đến 2 người vào rừng trong một số ngày nhất định. Cái này được quy định cụ thể bởi hội đồng già làng, được công khai hằng năm trong các cuộc họp cộng đồng*].

Mrs. Lin Thi Sen (Adult): "We attend the meetings and assemblies related to forest management. We send our children when we are busy. In assembly, issues are discussed like how to protect the forest, how and when to distribute forest products. We get grasses for two months in a year and some firewood" [*Chúng tôi tham gia họp thôn bản về quản lý rừng. Nếu không tham gia được thì cử con trai lớn trong gia đình đi. Nói chung là luôn cố gắng tham gia. Mục đích là để được thong tin, được tham gia ý kiến. Vì họp lien quan đến quyền lợi chia sẻ về rừng*].

Mr. Vi Van Sau (Elderly male): "We are not allowed to cut the forest. It is permitted to use the water at some locations, at others you cannot touch it. It is permitted to take honey but you have to give one bottle to the custodian" [*Người dân được quy định không chặt phá rừng dưới mọi hình thức. Tuy nhiên, việc sử dụng lâm sản phụ như măng, mật ong…được quy định cụ thể trong hương ước của thôn bản. Mục đích các quy định là đảm bảo rừng được bảo vệ và phát triển, nhưng vẫn đem lại lợi ích thiết thực người dân cần].*

Education

Customs, and cultural activities related to sacred forests have educational significance to ethnic minority people. Fines defined in taboos for wrong-doing have a range of consequences from warnings to heavy punishment. During community meetings, these customs and taboos are informally legalized in the mind of villagers through their "*co´ uy*" people. Especially, customs and taboos are detailed for activities in the forests, including time for access, what can and can't be done when utilizing forest material, and forest management.

As indicated above, fines applied to wrong-doers is significant in terms of educationl . because the band of fines range from warnings to raise awareness, to heavy punishment to

stop the culprits. To raise awareness for other villagers, all judgments on wrong-doers takes place in public. The punishments aims are to benefit the forests and local village. For example, wrong-doers often are asked to plant trees back in the forests, and provide compensation to their villages. Below is a response that typically reflects this:

> Mr. Din (Adult): "Every ethnic minority group has their own rules. Rules were set up a very long time ago and they demand unity. For example, a man who cuts down trees in the forest must compensate for his violation of the rules. If it's first-time violation, he will be criticized at the communal house. It it's his second time, he must give a pig in compensation. If it's his third time, he must give a cow or a buffalo. If he does repeat the offence, he will be expelled from the village" [*Người dân tộc thiểu số họ có quy tắc riêng. Quy tắc được hình thành từ xa xưa, đời cha ông của họ. Ví dụ như quy định về chặt cây thì bị xử phạt, theo các mức độ nặng nhẹ khác nhau. Mục đích xử phạt trước hết là để giáo dục, sau nữa là ngăn chặn các hành vì xâm hại rừng. Mục đích cuối cùng là gìn giữ và bảo vệ sự phát triển của rừng*].

As discussed, educational significance is reflected in the principle of equality, and non-monetary based sharing benefits and making contributions. Through the principle of equality in sharing benefits, ethnic minority people become aware of their responsibilities in contributing to the work of forest management, and that the gods judge. In the principle of non-monetary contributions, all material objects are diverse, but are familiar to the daily lives of the villagers and using exchange is significant when it is not suitable to ask villagers for money in a virtually cashless economy.

Summary

According to Soury (2007), there are two levels of protection for sacred forests, the rules and laws made by humans and imposed by them, and the perceived direct protection and punishment by the spirits. While the former is lacking in Vietnam (Van et al., 2018), sacred forests in Vietnam have been well-protected by divine retaliation. Local people believe that divinities, spirits or gods inhabit forests and protect and preserve these habitats to keep the protective gods near to the community. In some cases, it is in line with Tchoukpeni (1995)

and Byers et al (2001), cited in Soury (2007), forests also house the spirits of human ancestors. Moreover, the spirits themselves protect the forests through punishing people that do not prescribe to the rules.

As observed by the researcher, the shrines stay quiet in the forest and the forests are left untouched throughout the years. No one dares enter, and no one cuts down the trees there. No matter whether it is a big or small tree, if it falls due to heavy rain or strong winds, it remains there, intact, until it rots (Figure 11a). These behaviours show that forests are protected because of their sanctity.

Figure 11a: Pictures indicating forests are left untouched throughout the years

Source: Photo taken by author on 9th April 2018.

These finding support many other studies that indicate the traditional management of sacred forests are typically more effective than other regimes, such as protected areas and private forests (Ganguli et al., 2016; Daye & Healey, 2015; Yang et al., 2015; Shepheard-Walwyn, 2014; Allendorf et al., 2014; Daye & Healey, 2015; Adu-Gyamfi 2011; Byers et al., 2001; Ormsby, 2013). As shown in Chapter 4, Daye & Healey (2015) refers to Ethiopia, and highlights that having sacred status gives greater protection by local communities than non-sacred forests.

This effectiveness of sacred forest management is significant when thinking about the wider context of natural resource management globally and Vietnam. Vietnam is one of the top nations for gross tree cover loss in the first years of the 21st century, although forest cover has increased in recent decades, mostly through plantations. Weak governance is pointed out amongst other underlying indicators for deforestation and forest degradation, including loss of initial forest cover, per capita income, agricultural production, population growth, food, and poverty. According to Van et al (2018), this shows weak governance and in-appropriate design and implementation of policies, which means more corruption and less protection of natural resources (forests, water, land, etc.).

10.4. Conclusion

Section 10.2 shows that sacred forests are crucial in forming and maintaining the culture of "respect" in ethnic minority people in Vietnam. This culture is reflected in many layers, including people to people (younger generations to the older ones, and to their ancestors), and human to nature. In relation to the former, this is significant in maintaining *Vietnamese*'s culture as a whole and maintaining deep respect for ancestors (Fisher, 2018, cited in Kawaguchi-Suzuki, et al., 2019).

In relation to the latter, this reflects other studies that claim places that are sacred, often provide a foundation for connection of human and spiritual worlds (Verschuuren, 2010; Randrianarivony et al., 2016; Lewis & Sheppard, 2005; Eleanor, 2017). In this regard, ethnic minority worldviews demonstrate a healthy balance and sensitive way for people to co-exist with the natural world throught their acknowledgement and gratitude to it.. They believe that people should show respect, honour, and thankfulness toward the physical and spiritual worlds sand for the wellbeing they depend on.

From a forest management perspective, Section 10.3 shows that the belief in sacred forests is reflected in ethnic minority ethics, ceremonies, and norms, which may have significantly helped minorities live sustainably over millennia, and which further contributes to preserving the diversity of natural and cultural systems. While deforestation and illegal logging are burning issues in many places, and many forests are at risk of being devastated, those forests managed by ethnic minority people are still luxuriant and green. This partly proves the

effectiveness of forest management by local people using religious motivations. As one respondent suggested:

> Mr. Din (Adult): “Let’s behave like them. If so, human beings and the forest will be in good friendship or brotherhood. By then, we can protect the forest, and it can protect us and enrich our lives” [*Hãy hành xử như người đồng bào trong việc quản lý rừng và đời sống hằng ngày. Nếu con người ta ai cũng giác ngộ như người đồng bào thì sẽ tốt cho rừng, cho thiên nhiên. Và vì thế tốt cho cuộc sống*].

The effectiveness of sacred forest management is significant when thinking about the wider context of global resource management and Vietnam. In Vietnam, a discussion in Van et al (2018) shows a weak governance with in-appropriate design and implementation of policies, encourages corruption and less protection of natural resources (forests, water, land, etc.). This may reflect Vietnam’s status of being one of the top nations for gross tree cover loss in the beginning years of the 21st century.

Chapter 11
Conclusions and recommendations

11.1. Introduction

Among the three contributions to knowledge corresponding to the three specific objectives presented below, are two extra contributions this research develops relating to connections between components. The first discusses sacred forests and shows links between the three "D" topics: definition, diversity (categorization) and multi-dimension (significance) - environmentally, economically and culturally. As discussed through Chapters 7, 8, 9 and 10, there are always overlaps in discussing these. For example, the significance of sacred forests is highlighted by research informants responding to all three research questions. Especially, the research evidence on the ground (Chapters 7, 8, 9 & 10) discusses the three "D" topics correlating to each other through the dimension "C" – representing the cultural value of local people and indigenous communities in particular.

In this regard, the Figure 11a below presents a visualization of the worldview of indigenous communities on sacred forests and nature. In this figure, Indigenous Australian perspectives are indicated by Sangha et al. (2018), showing local communities intricately connected with their sacred forests through a representation of sacred, physical, and social worlds. As presented in Chapters 7, 8, 9 and 10 especially, local communities consider sacred forests as their "ancestors" who fulfil their spiritual, social, and material needs and their importance to people is conveyed through relationships, songlines, stories, and ceremonies. Through ceremonial activities, people have rights and responsibilities based on their specific connections to a specific sacred forest established or reinforced. As discussed in Chapters 9 and 10 particularly, sacred forests offer opportunities for people to learn and perform rituals and cultural ceremonies, and to continue their spiritual-cultural relationships. From an ecological perspective, this 'relatedness' to the sacred forests among many indigenous people worldwide is built through ethics, and derived from their ceremonies creating norms which may have significantly helped them to live sustainably over millennia, and which contributes to preserving the diversity of natural and cultural systems.

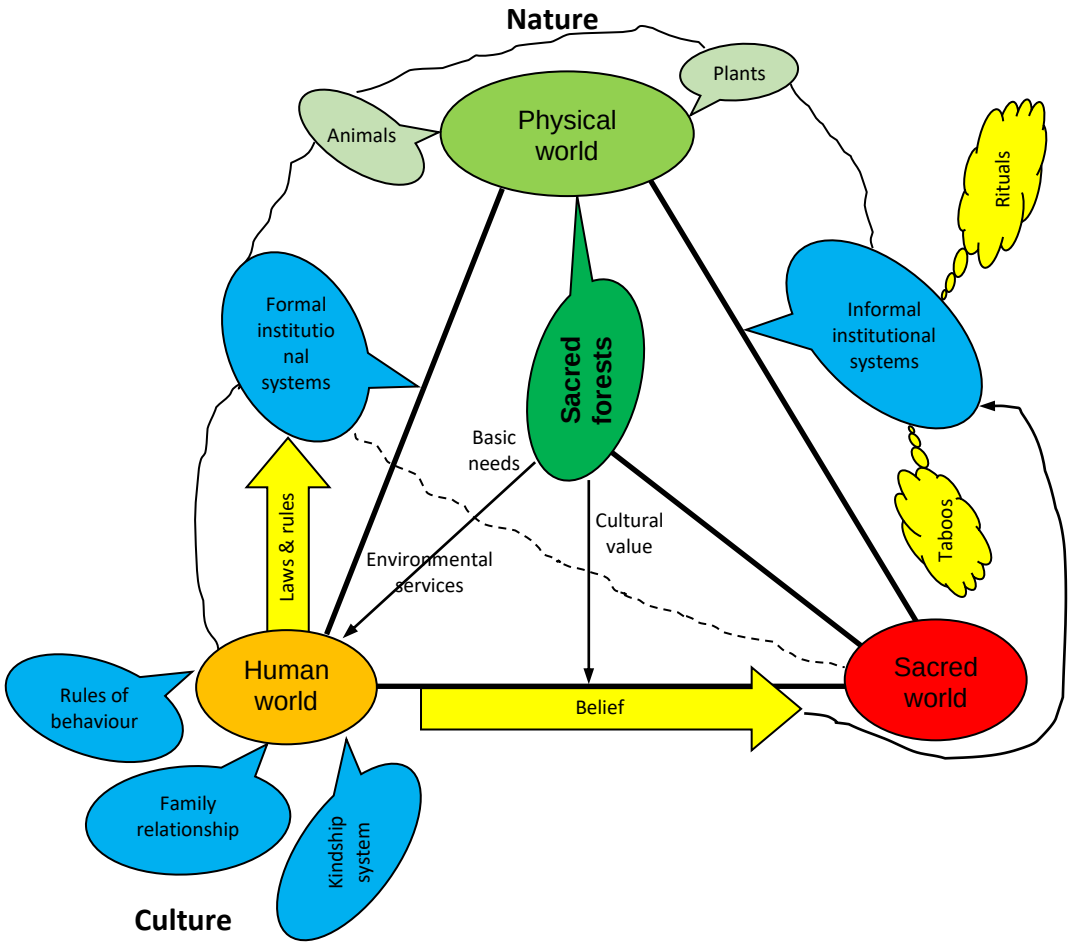


Figure 11a: Comprehension of worldview of the communities

Source: Adapted from Aboriginal art cited by Sangha et al (2018).

Therefore, this thesis illustrates that it is revealing to explore understandings about sacred forests within local perspectives, as shown by the worldview of Indigenous Australians indicated in Sangha et al. (2018). Under indigenous local's perspectives, the definition of sacred forest is basically determined by the relationship between the human and the sacred world. However, diversification of sacred forests is determined by its physicality and associated cultural aspects representing by the sacred world with the multi-dimensionality of sacred forests determined by the relationship between humans and nature. In this regard, nature to human beings may be superficially perceived through ecosystem services, which the United Nations's (1992) "sustainable development" paper divides into four categories: Promoting Services, Regulating Services, Cultural Services and Supporting Services, with each type of service providing different benefits that contribute to human well-being.

Knowledge about sacred forests is subjective, socially and contextually constructed, and may be determined by the ontological position of interpretivism (or relativism) indicated in Tuli (2011). As justified in Chapter 4 (Section 4.4), knowledge on sacred forests is subjective because of definitions of what these places mean, and what value they offer, and is always in relation to human beings. The discussion in Section 4.2 of Chapter 4 shows that human elements are often referred to in definitions of sacred forests. The relationship to humans indicated in Arora (2006), shows the idea of a forest separated from people, is an illusion 'since it denies the unalienable relation of nature to man' (Rangarajan 1996: 70). In accordance with this, Chapter 4 (Section 4.4) also discusses numerous studies indicating that sacred forests are closely linked to local communities through the values these natural resources offer.

In regard to human values, Chapter 2 (Section 2.3) shows that embodiment is a useful tool in doing research and is especially significant when related to local knowledge, as is qualitative research and ethnography. While these type of studies require understanding people's thoughts (what they think), emotions (what they feel), and behaviour (what they do), "embodiment" as a learning model proposed by Latour (2004), provides an "extra dimension to mind", which is "body-mind" for researchers doing fieldwork. Latour (2004) says as a result of Vinciane Despret's argument (on this issue), and drawing on William James on emotion: to have a body "*is to learn to be affected"*, meaning 'effectuated', moved, put into motion by other entities, humans or non-humans. In Kinsella (2015), seeing the body as a subject, as a vehicle for understanding, brings about a shift from disembodied knowing towards embodied knowing.

11.2. Key findings

Outcomes from the objective 1: Definition of sacred forests

On the ground, there are a wide range of responses regarding the concept of sacred forests, and the diversity of responses synthesized gives a definition of sacred forest in Vietnam, which is: sacred forests arehighly bio-diverse wooded areas belonging to fixed communities. It has holistic significance to the attached community in regard to livelihood, environmental protection, and culture. These sites honor deities, provide sanctuaries for spirits, remind

present generations of ancestors, and the access and management is regulated in traditional ways.

Outcomes from the objective 2: Diversification of forests

Sacred forests are diverse due to their socio-cultural contexts, as opposed to the mainstream categorizations based on two major dimensions, geography and ownership. This diversity is driven by informal institutional systems represented by rituals, ceremonies, and taboos related to entry, and material and cultural use of sacred forests. In this regard, Chapter 8 (Section 8.3) presents differences in relation to issues, such as date of operating cultural activities, duration of the activities, and people's participation and contribution.

Outcomes from the objective 3: Multi-dimension of sacred forests

Chapter 9 shows sacred forests are perceived by local people in multiple dimensions economically, environmentally, and socio-culturally, and that these dimensions are contextual with culture being dominant. A collective outcome discussed in Chapter 6, 7, 8, and 9 reveals that the attitude of local people to these dimensions is driven by a dynamic of issues related to their demographics such as age, gender, education level.

Discussed in Chapter 4 is the understanding that concepts relevant to sacred natural sites and forests always have a cultural context. However, Chapter 9 (Section 9.2, 9.3 and 9.4) shows the "why" understanding that sacred forests are contextual in multiple-dimensions and not only culturally, but also environmentally and economically. Each of these elements affect and are in turn affected by the others.

11.3. Implications

The researcher's interest in looking at the three "D" topics collectively is given in the context of the link between these topics being overlooked. In reality, no studies have claimed this link, therefore, the finding reminds future researchers when studying sacred forests, that these three "D" topics cannot be studied separately. This unfolds the argument about the link that some studies have made. In this regard, Chapter 5 (Section 5.2) refers to Henrie's (1972) argument about the need to include a three dimensional expanse as man defines, limits, and characterizes sacred places. This section also refers to other studies arguing that in either

giving a definition, or analysing multiple-dimensions of sacred forests, it is impossible to ignore their diversity. Therefore conceptualizing them depends very much on the different entities of spatial and temporal relationships, and on the cultural context of each region (eg. Muli, 2016; Ormsby, 2013; Anh, 2010; Deb, 2007; Poffenberger, 1996).

Interpretivist perspectives challenge most existing studies on sacred forests that favour a positivist stance. This argues for the superiority of idealism and ignores the intangible dimensions of these resources. Some recent studies call on addressing this issue, noticeably Saway (2015), who suggests that understanding the holistic relationships between local cultures and the forests is fundamental to resolving conflicts in existing biases by forest managers over local and indigenous cultures, and knowledge in favour of business interests. Similarly, Singer (2013) argues that ecological and economic arguments present only one side of the story. This suggests further research on the topic of socially contested phenomena in bioenergy production of forest residuals in the US is needed. In line with these two studies, Agnoletti & Emanueli (2016) calls for a less hard science and more detailed ethnographic-humanist analysis of sacred natural sites and forests.

In relation to the objective 1: Policy advocacy

Finding a holistic definition of sacred forests in Vietnam addresses the critique raised in existing studies (Chapter 4, Section 4.2) that the concept of these places is too broad, and lacks clearly defining the term "spiritual value" of forests. As indicated in the section, Clark (2011) and Negi (2005) both argue that there is a lack of definition of the spiritual value of forests, although there is generally a broad awareness of this issue. As they point out, this lack of clarity hinders incorporating spiritual values into the practice of sustainable forest management.

A holistic definition of sacred forests may not be meaningful to local people because discussion in Chapter 7 (Section 7.2) shows that responses of local people to the first research question is individually subjective, and shows a diversity of attitudes on the concept of sacred forests. However, a holistic definition is meaningful for convincing policy makers and government administrators to recognize sacred forests existence, and their significance to local communities through contributions they make to food security of less affluent families.

Therefore, it especially impacts on countries where governments are still in doubt about what sacred forests mean, what value they provide, and who owns them. As a result of a tangible definition, these countries may be willing to legitimate this idea in their forest management work.

In Vietnam, the significance is more obvious. For example, Chapter 5 (Section 5.3) discusses a group of NGOs advocating for land rights for local people in Vietnam, and recent struggles to convince the government to legitimize sacred forests in its most recent forest law. As indicated in the section, these NGOs are motivated to advocacy by a lack of acceptance of the idea of sacredness and sacred forests in the forestry laws, although these laws have been revised in 1959, 1972, 1991, 2004 and 2017 (VNAO, 2017) which start to recognize indigenous rights.

Because of a lack of scientific reasoning into social relatations to places and forests, sacred forests are still marginalized internationally and the most recent call to recognize these special sites is in 2017. This calls for environmental organizations such as IUCN, Convention on Biological Diversity, to consider declaring sacred groves as global "hotspots" of biodiversity significance (Boadi et al., 2017). Historically, involvement of UNESCO, and the importance of these types of natural resources is formally recognized in an international convention held in *Kunming and Xishuangbanna Biosphere Reserve* (People's Republic of China) in February 2003 (Lee & Schaaf, 2003). The most important outcome of the conference is expressed in the participants' wish to create an international network of scientists and conservation experts, to promote information exchange and in-depth studies on the importance of sacred natural sites for biodiversity conservation (Lee & Schaaf, 2003). Going further with this history, Schelhas & Greenberg (1996) argue that these places around the world share common features of existing independently of government laws and regulations.

At national and local levels, some countries lead in designating officially sacred forests and sacred natural sites. Recently, Benin, set a precedent by becoming the first country in Africa to pass a law protecting their sacred forests (Anna, 2018). Ethiopia has also been taking measures to rehabilitate degraded forests and forest lands, with a focus on sacred natural sites (Zewdu & Beyene, 2018). Another example, Khan et al. (1997), cited in Ormsby

(2013) recommends to the Indian Government that sacred forests should be included within the legally protected area network.

Formal recognition of sacred forests by governments is globally fundamental to recognizing the right of local people to forests generally. This is given that currently, governments around the world still administer 60% of global forests, while firms and private individuals administer 9% (Myrna, 2016). The rest, 31% are used by forest dependent people which accounts for 25% of the population. By contrast, there are few forests designated as belonging to indigenous communities, while they are the most dependent group on the forests. Data shows (Chapter 5, Section 5.2) that in 2015, only 12.5% the global forests are held by indigenous peoples.

In relation to the objective 2: Recognising the right of local people to their customary resources

A new perspective for categorizing sacred forests based on cultural dimensions is significant for many reasons. It addresses the problem mentioned above, that no studies have focused on classifying sacred natural sites and forests, despite their diversity and being "global phenomena" (Andhra Pradesh, nd; Verschuuren, 2010).

It is especially important a new classification focuses on cultural aspects, to reflect existing studies that arguing diversity of these sites is driven by the way in which local people practice their beliefs in them, including rituals, ceremonies, and taboos (eg. Bas et al., 2010, cited in Muli, 2016; Anh, 2010; Deb, 2007; Verschuuren, 2010). This focus moves away from current sceptical classifications of sacred forests. For example, discussions in Chapter 4 (Section 4.3) show that sacred forests are literately well-classified in terms of ownership that favour non-indigenous people, and which is argued, takes over management control causing alienation of local people from these places and natural resources (Chandrakanth et al., 2004, cited in Ormsby, 2013).

A new perspective for categorizing sacred forests is fundamental for incorporating these models of forest management into relevant government programs, not excluding: agricultural development and food security, environmental protection, cultural conservation, education, and poverty reduction. As exemplified in Chapter 8 (Section 8.3), understanding the diversity

of sacred forests in terms of a time dimension implies governments need to cooperate with development programmes and policies related to local people, such as reflecting yield production, forest protection and biodiversity conservation. As referred to, ritual beliefs of indigenous people are one of the most important tools in understanding local communities and in aiding nature conservation (Geng, et al., 2017).

In relation to objective 3: Sacred forests are multi-dimensional with a strong cultural aspect

Generally, it is significant to understandthe "what" of local people's attitudes on sacred forests with multiple values (multi-dimensional) – economically, environmentally and culturally. Chapter 4 (Section 4.4) refers to Winter (2007) who indicates that values are important, because they influence attitudes and behaviour. This study stresses that an orientation is a collection of values which provides a broader indication of a person's environmental concerns. The section also refers to Wohlleben (2016) who argues in "*The Hidden Life of Trees*" that:

> "how our appreciation for trees affects the way we interact with the world around us" (p. xi)… when people know that trees experience pain and have memories and that tree parents live together with their children, then they can no longer just chop them down and disrupt their lives with large machines (xiv).

a) The culture of sacred forests

It is significant that culture is the strongest dimension when compared to the environmental and economic aspects. As indicated in this research, it shows an interpretivist approach helps more strongly to identify many more possible forest values, and also highlight the intensity of those values, and differences across different stakeholder groups, as well as differences between demographic and economic groups. In other words, research using an interpretivist approach to study sacred forests provides a comparative template. Generally, this is important given that comparative analysis is essential to basic scientific and philosophic inquiry, and has a long history (Deutsch & Karl 1987).

In relation to studies of sacred natural sites, including sacred forests (Chapter 4, Section 4.4), numerous studies provide a comparative sense of the multiple-dimensions of these places by quantifying their values (eg. Randrianarivony et al., 2016; Winter, 2007; Kumar & Kant, 2007). However, this section also shows the drawbacks of a "survey-based" approach that exemplifies the valuation of goods and ecosystem services superficially, and does not correctly reflect the real significance of biodiversity (eg. Heal, 2000, cited in Randrianarivony et al., 2016). In this, the section referring to Kumar & Kant (2007) and Winter (2007), warns of the limitations of using social research strategies for recognizing the multi-dimensions of customary forests. This is because most research strategies are designated for usein general public samples in developed countries only, and should be used cautiously to measure the environmental values perceived by indigenous peoples.

Recognition of the dominance of culture as a dimension of sacred forests is significant in the management of forests natural resources generally, and perhaps provides a clear answer to why the world has been facing environmental crisis. Responding to the global crisis of natural sites (including forests) being abandoned, degraded or lost completely, Verschuuren (2010) challenges the scientific community, policy makers and environmental practitioners on exploring what kinds of land use and resource management practices are most appropriate for which areas. In this regard, research findings in line with other studies show that traditional forest management models must be integrated into western scientific-based ideas when managing nature. Acknowledging the intangible dimensions of forests, Wohlleben (2016) states that, "forests matter at a more fundamental level than most of us realize" (p. xi). Referring to Milton's (2002) study on the relationship between emotion and rationality in environmental policies and practices, Tilley & Cameron–Daum (2017) compares and contrasts between the two modes:

> "Emotion, she argues, is the primary reason some people care about nature. ....These deep feelings for nature emerge from their perceptual experience of their environment....A fundamental difference between the manner in which modern western societies and indigenous traditional societies treat nature often involves the notion of the sacred. The former can destroy nature because they are separated from it whereas for the latter nature inheres in social being. Nature for

> us in the contemporary west is a resource to be used and exploited and bound up with land ownership" (pp. 14).

Moreover, as sacred forests have a very strong cultural dimension, they are important for conserving cultural diversity in the world, especially that of indigenous peoples. As indicated in Chapter 4, sacred forests are a "global phenomenon" numbering hundreds of thousands and existing on all continents, including the Austro - Pacific region. In this regard, all the world needs these places for maintaining cultural practice and a sense of spiritual history, when sacred forests are seen as "the first temples of worship" (Varner, 2005, cited in Deb, 2007). This is relevant to indigenous communities who represent 95% of the world's cultural diversity, even though they constitute the minority (Sobrevila, 2008; Stevens, 2014).

b) Sacred forests in relation to landscape

It is also significant that sacred forests are contextual in providing livelihoods for local communities. As exemplified in Chapter 9 (Section 9.2), conservation of sacred forests will not be successful without providing local communities viable options for sustaining their economic conditions, such as plantations, agricultural development and access to protected areas. This need to provide alternatives for livelihoods is crucial for forest-dependent people both globally and in Vietnam. Globally, around 25% of the world population of so called "forest people" depend to varying degrees on forests for their livelihoods, not just for food, but also for other uses such as fuel, livestock grazing areas and medicine (Sophie 2012, citied in Hall & Patrinos, 2012). In addition to this, 50% to 90% of total livelihood income of the world's poorest people are dependent to natural ecosystems (Roger, 2012).

In relation to Vietnam, the need for livelihood generation is important to indigenous communities in sacred forests. Because it is a "forested country" with 70% of its population living in rural areas, and their livelihoods are heavily dependent on forests (Chapter 6). Vietnam is a tropical country with 50% of its 32 million hectares categorized as forests (GoV, 2012), 8.9% tolerated customary management on ancestral land and managed by nearly 10.000 local communities, mostly minority groups. Of Vietnam's 54 groups and 90 million people, 53 groups are minorities and 14% of the total population. Therefore, Vietnam needs to

develop its sacred forests as part of national food security strategy for some of its most vulnerable communities.

Studies recognizing the significance of sacred natural sites also need to emphasize the connection of sacred natural sites and sacred forests to the landscapes that surrounds them. In this regard, existing studies (Chapter 4, Section 4.4) only compare biodiversity values between sacred forests and non-sacred forests such as plantations, protected areas and private forests (Boadi et al., 2017; Salick et al., 2007; Dudley et al., 2010).

11.4. Limitations and recommendations for future research

Acknowledging this research, it is increasingly apparent that when research is too dependent on an interpretivist philosophy, there is a tendency to the skewe view. It would be a better balance for research to pay more attention to the contribution of positivist perspectives. Especially, when recognizing tangible contributions of sacred forests, such as timber values, income generation for local people, and water values related to daily use by people, as well as regulation for farms and villages. As indicated in Chapter 4 (Section 4.4), the contribution of this approach is revealed by identifying and measuring the contribution to the richness of fauna and flora of forests, which is significant for comparative studies.

There is a shortcoming to this research when it could not analyze data related to objectives of rituals related to Vietnam's sacred forests. Even though there is analysis showing sacred forests are diverse because different communities have different sacred forests, and accordingly different rituals. However, the analysis did not focus on the meaning of each ritual related to the forests. Instead, analysis focused on aspects such as time, participation and contribution presented in Chapter 7 (Section 7.2).

This research also did not construct analysis in consideration to the content of each ritual described by the informants. It is complicated to analyze, and given the need of a timely completion required under under the policy of the scholarship programme the researcher is funded by, it could not be undertaken. The content is further complicated by the reflection of research informants showing that ritual relate to the ways of life formed by the culture of the people, and embedded in the intimate interactions with sacred forests.

Therefore, it would be useful for future research to analyse these rituals. The significance of this research going forward is that few studies have specifically explored the role informal institutions play in conservation practices (Muli 2016; Reuben & Kquofi 2015). In addition to this, ritual is largely ignored in Western philosophical reflection (Solomon et al., 2012; 2015: 1), while western ideas have been widely introduced into the management of natural resources of the non-western world for decades. Ritual study is also important because understanding rituals or customs is more important than understanding written laws, if one would like to successully manage natural resources (Herrmann-Pillath, 2016). Furthermore, rituals can be understood as store houses of meaningful symbols by which information is revealed and regarded as authoritative, and because they deal with the crucial values of the community (Tidball, 2014).

A study toward ritual analysis is instrumental for showing the diversity of sacred forests in terms of a common culture, and finding common ground on sacred forests between different communities, and therefore greatly significant for forest management in Vietnam and the wider world. In Vietnam, Chapter 4 (Section 4.3) shows there are thousands of sacred forests related to thousands of communities belonging to ethnic minority groups in the country. In this regard, understanding common grounds may help the Government of Vietnam propose comprehensive policies that incorporate the management of culture and nature in mountainous areas.

Understanding rituals related to sacred forests is also important because diversification of sacred forest is intimately related to rituals and ceremonies. Deb (2007) indicates that different cultures perceive sacred natural spaces in different ways, and institutionalize rules of behaviour that reflect this. For example, in relation to ritual only, the sociologist Mervin Verbit indicates that rituals may be broken down into four characteristics; content, frequency, intensity and centrality. The content of a ritual may vary from ritual to ritual, as does the frequency of its practice (Verbit, 1970, cited in Stausberg & Engler, 2013).

10.5. Recommendations

Governments may need to incorporate holistic definitions of sacred forests, especially spiritual values into sustainable forest management to make them meaningful and effective. In

Vietnam, this research finding encourages the government to legitimize a holistic definition into future forestry laws and regulations as some research participants responded:

> Mr. Chua (The Patriarch of *Lung San* village): We ask the government to demarcate our sacred ancestral sites and to…formally incorporate them into the community managed forest areas [*Chúng tô hẩn thiết kêu gọi Nhà nước công nhận rừng thiêng và rừng tâm linh…bằng cách hợp thức hóa trong luật một cách cụ thể hơn*].
>
> Mr. A Seo (Adult): We have seen the many challenges facing survival of our ancestral sacred forests. We ask all those concerned to help the community to conserve these….. areas for current and future generations [*Chúng tôi phải dối mặt với rất nhiều thử thách trong việc gìn giữ rừng truyền thống. Chúng tôi kêu gọi Đảng và Nhà nước quan tâm hỗ để chúng tôi bảo vệ những khu rừng này vì tương lai của con cháu*].
>
> Mr. Dung (Elder): We ask the government to acknowledge these sacred ancestral forests. We ask for boundaries to be marked and included in official village forests [*Chúng tôi mong muốn luật hóa những khu rưng tâm linh. Chúng tôi mong muốn được làm rõ ranh giưois, căm mốc để có cơ ơ bảo vệ và bảo tồn rừng tâm linh cho làng bản*].

These suggestions of legalization of sacred forests aligns with calls from the Vietnamese scientific community, as well as international organizations to recognize sacred natural sites and forests. For example, in Dudley, et al. (2010), despite a need for further studies, evidence for the conservation value of sacred natural sites is already clear enough to justify their incorporation into conservation strategies. Equally important, it is in line with countries around the world starting to recognize sacred natural sites, and their communities as the custodians who govern and protect these places and protecting them with relevant laws (Anna, 2018).

This incorporation also needs to redirect understanding diversity of sacred forests socio-culturally, which means including policies and programs related to local communities for agricultural development, cultural conservation, education, povety reduction and biodiversity

conservation. The focus needs to be on recognizing and strengthening local people's practice of their beliefs, which includes rituals, ceremonies, and taboos related to sacred forests.

Their inclusion further needs to consider, not only multiple-dimensions of the economic, environment, and socio-culture of sacred forests perceived by local people; but also the dynamic of their context on the ground, and issues related to local demographics. A development of this approach is shared decision making that is intended to bring the holders of cultural knowledge together with outsiders, and to facilitate cross-cultural communication, build awareness of the values that define communities, and develop solutions that satisfy the needs of both aboriginal and non-aboriginal communities. Furthermore, it is important for outsiders of ethnic minority communities to be sensitized to cultural values of sacred forests, and by broadening a curricula of post-secondary planning institutions to include exposure to an array of traditional cultures, values (e.g. social, spiritual and identity), and cross-cultural communication techniques. These may result in an achievement of greater food security and political stability through understanding and acceptance in Vietnam.

As culture is central to the relationship between local people and sacred forests, study in this field should consider the use of an anthropological approach (Podolefsky et al., 2009: 155). That is, sacred forests are multiple and diverse and studies in this field require a conception of a holistic and comparative study of humankind that emerge from the four fields of anthropology: biological (or physical) anthropology, archaeology, anthropological linguistics, and cultural anthropology.

Approaching anthropological methods means favoring ethnography, a research methodology pioneered and developed in anthropology (Podolefsky et al., 2009: 156). This approach often involves in-depth interviewing with a few key informants and then interpreting (and writing about) the outcomes and reflections on that culture for the researcher's own society.

As anthropologists are deeply and emotionally involved in understanding the human condition (Podolefsky et al., 2009: 1), embodiment teaches them that knowing, is learning to be affected (Latour, 2004: 1). To be more affected, anthropologists often thinks of themselves as a children – as being ignorant or uninformed, and needing to be taught by the people being studied. This is because at birth, humans are capable of absorbing any culture and language

(Podolefsky et al., 2009: 156), and to avoid the paradox that humans unconsciously reject cultural beliefs and values of other peoples.

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Appendix 01: Field work approval

HUMAN ETHICS COMMITTEE

Secretary, Rebecca Robinson
Telephone: +64 03 369 4588, Extn 94588
Email: human-ethics@canterbury.ac.nz

Ref: HEC 2017/134

20 December 2017

Viet Van Tran
Sociology
UNIVERSITY OF CANTERBURY

Dear Viet

The Human Ethics Committee advises that your research proposal "Ethnic Minority People -Sacred Forests in Vietnam" has been considered and approved.

Please note that this approval is subject to the incorporation of the amendments you have provided in your emails of 18th November and 4th and 13th December 2017.

Best wishes for your project.

Yours sincerely

R. Robinson

pp.

Professor Jane Maidment
Chair
University of Canterbury Human Ethics Committee

Appendix 02: The Youth Union

The Ho Chi Minh Communist Youth Union, hereafter called Youth Union, was founded in 1931 by the Central Committee of the Communist Party of Vietnam. It is one of the socio-political organisations under the oversight of the Party, but is not subject to direct management by the government or related executive authorities.

The Youth Union is structured from central to local levels in every administrative, government and private organisation, and at each organisational level cooperates with the executive authority of the same organisation to carry out the organisation's activities. Table A1 below illustrates the hierarchical structure of the Youth Union showing the unions at the lower levels are directed by their immediate higher level. Youth Union "Units" are the lowest level of the Youth Union system which comprises at least three members.

Members of the Youth Union are people from the ages 16 to 30 and the ages of leaders can be up to 40 years old. Members join the Union voluntarily through an approval process at the Unit of Youth Union and many people see being recruited as a member an important achievement. Once recruited, the membership status will remain until the age of 31, unless expelled due to committing offences.

Source: Youth Union of Ho Chi Minh City (2019).

Appendix 03: The Women's Union

Vietnam Women's Union, hereafter called the Women's Union, was founded in 1930 by the Central Committee of the Communist Party of Vietnam. It is a socio-political organisation whose members are women aged from 18 years old. Although joining the Women's Union is voluntary, it often happens that all adult women in an area or in local organisations are recruited as members, if the union has been established in their organisations or residential areas. Members of the Women's Union can at the same time be members of other unions, such as Youth Union and Veterans Association.

The Women's Union is organised in all administrative, government and private organisations from central to local levels. And its hierarchical structure is similar to that of the Youth Union (Table A1). Apart from cooperating with executive authorities in a wide range of activities, this union also carries out its own activities, such as supporting members in livelihood improvement (e.g. providing credit loans and assisting each other in earning a living), and conducting educational campaigns about the Family Planning Program (each family can have a maximum of two children).

Source: Vietnam Women's Union (2019).

Appendix 04: The Veterans Association

The Veterans Association of Vietnam, hereafter called the Veterans Association, was founded in 1989 by the Central Committee of the Communist Party of Vietnam. It is a socio-political organisation whose members are veterans and who voluntarily join the association. This association is structured in all administrative levels (Central, provinces, districts and communes). It is also organised within government organisations (e.g. government departments, corporations, companies, universities, etc) that have employees who are veterans.

Some major activities of the Veterans Association are participating in social security activities (e.g. stopping crimes and preventing violence in their residential areas or work places) and helping members improve livelihoods, especially in household production activities. This association also cooperates with executive authorities and other associations and unions in a wide range of shared social activities.

Source: The Veterans Association of Vietnam (2019).

Appendix 05: Summary of interview sample

No	Level of authority	Number of interviewee																			
		Total	Classification																		
			Age				Gender			Location of interview				Degree of richness				Education				
			Total	*Young (under 30)*	*Middle (30-50)*	*Elder (>50)*	Total	*Male*	*Female*	Total	*I.House*	*O.Street*	*I.Forest*	Total	*High (> 2 hour and repeated)*	*Midle (10 - 30 minutes)*	*Short (10 - 30 minutes)*	Total	Un-able to read and write	Total	Read and write	
																					Normal	Good
Total		48	48	16	20	12	48	42	6	48	16	24	8	48	18	10	20	48	22	13	13	
%			100,0%	33,3%	41,7%	25,0%	100,0%	87,5%	12,5%	100,0%	33,3%	50,0%	16,7%	100,0%	37,5%	20,8%	41,7%		86,4%	15,8%	15,8%	
I	Provincial level	2	2		2		2	2		2	2			2			2	5	2	2	1	1
II	District level	8	8	2	6		8	8		8	4	4		8	2	2	4	4	1	3	2	1
III	Commune level	12	12	2	6	4	12	12		12	2	6	4	12	2	2	8	8	3	5	5	
IV	Village level	26	26	12	6	8	26	20	6	26	8	14	4	26	14	6	6	31	16	8	7	1

Appendix 06: List of respondents who are cited in the text

No	*Name*	*Age*	*Gender*	*Ethnic group*	*Residental location*				*Case study*
					Province	*District*	*Commune*	*Village*	
1	Võ Hữu Hà	30	Male	Kinh	Lào Cai	Simacai	Lùng Sui	Lùng Sán	Nào Lồng and Thứ Tỵ sacred forests
2	Vi Văn Sáu	67	Male	H'Mong	Lào Cai	Simacai	Lùng Sui	Lùng Sán	Nào Lồng and Thứ Tỵ sacred forests
3	E Leng	60	Female	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest
4	Lý Seo Chùa	68	Male	H'Mong	Lào Cai	Simacai	Lùng Sui	Lùng Sán	Nào Lồng and Thứ Tỵ sacred forests
5	A Khương	40	Male	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest
6	A Leo	55	Male	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest
7	Vi Văn Dung	70	Male	H'Mong	Lào Cai	Simacai	Lùng Sui	Lùng Sán	Nào Lồng and Thứ Tỵ sacred forests
8	A Thút	62	Male	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest
9	Lý Xeo Hùa	45	Male	H'Mong	Lào Cai	Simacai	Lùng Sui	Lùng Sán	Nào Lồng and Thứ Tỵ sacred forests
10	Lương Văn Thịnh	42	Male	Nùng	Lào Cai	Simacai	Lùng Sui	Lùng Sán	Nào Lồng and Thứ Tỵ sacred forests
11	Cư Xao Mình	25	Male	H'Mong	Lào Cai	Simacai	Lùng Sui	Lùng Sán	Nào Lồng and Thứ Tỵ sacred forests
12	Vi Văn Dìn	38	Male	H'Mong	Lào Cai	Simacai	Lùng Sui	Lùng Sán	Nào Lồng and Thứ Tỵ sacred forests
13	A Sung	27	Male	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest
14	Sùng Seo Xử	40	Male	H'Mong	Lào Cai	Simacai	Lùng Sui	Lùng Sán	Nào Lồng and Thứ Tỵ sacred forests
15	Đỗ Việt Hồng	37	Male	Kinh	Lào Cai	Simacai			Nào Lồng and Thứ Tỵ sacred forests
16	Lín Thị Sen	30	Female	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest
17	Sùng Seo Minh	22	Male	H'Mong	Lào Cai	Simacai	Lùng Sui	Lùng Sán	Nào Lồng and Thứ Tỵ sacred forests
18	A'Đíu	29	Male	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest

19	A Mừng	72	Male	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest
20	A Mùa	40	Male	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest
21	A Nei	59	Female	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest
22	A Lên	23	Male	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest
23	Vi Văn Dung	35	Male	H'Mong	Lào Cai	Simacai	Lùng Sui	Lùng Sán	Nào Lồng and Thứ Tỵ sacred forests
24	A Tư	73	Male	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest
25	Lầu A Lềnh	40	Male	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest
26	Lý Xeo Cầu	71	Male	H'Mong	Lào Cai	Simacai	Lùng Sui	Lùng Sán	Nào Lồng and Thứ Tỵ sacred forests
27	A Lin	45	Female	Bahnar	Kontum	Sa Thầy	Hơ Moong	K'Bay	Nước Giọt sacred forest
28	Trần Hữu Sơn	55	Male	Kinh					Nào Lồng and Thứ Tỵ sacred forests, Nước Giọt sacred forest
29	Vũ Hồng Điệp	47	Male	Kinh	Lào Cai				Nào Lồng and Thứ Tỵ sacred forests

Appendix 07: Letter of Introduction

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Letter of Introduction

Department: Sociology, School of Language, Social and Political Sciences
Telephone: 0291222844
Email: viet.tran@pg.canterbury.ac.nz

To whom it may concern,

Ethnic minority people and sacred forests in Vietnam

My name is Viet Van Tran, I am currently pursuing my doctorate in sociology at the University of Canterbury in New Zealand and researching the relationship between Vietnam's ethnic minority people and sacred forests. This is to inform you, I will be on field research in Vietnam observing and exploring relationship between Vietnam's ethnic minority groups and sacred forests. I will be engaging in un-structured interviews with local people who are willing to participate in my research.

If you wish to volunteer as a participant in my interviews through a private, open and un-structured interview, I would like you to help me understand your attitudes regarding sacred forests in your village. I will also be interested in exploring relationships between local people and sacred forests. However I assure you, no images identifying you will be taken and no audio recordings will be made without permission, irrespective of your choice of being involved or not as a participant in my interviews.

Further, if you wish to participate in the interviews, you may withdraw at any stage up until October 2018, as I anticipate submitting my research findings in December 2019. If you do withdraw, I will remove all information relating to you. Only I and my two supervisors will have access to the raw data, and all data will be stored in a locked cabinet at my home. All transcribed material or electronic notes, written material and voice recording files will be stored on my personal laptop which can only be accessed by my id and password, and backed

up on the university computer system. At the end of this research project the data will be kept for 10 years and apart from the final research document, be destroyed. However it will be fully searchable as a PDF file on the University of Canterbury online library.

This project is being carried out as a requirement for my PhD Thesis Research under the supervision of Professor Steven Ratuva, who can be contacted at steven.ratuva@canterbury.ac.nz and he will be pleased to discuss any concerns you may have about participation in the project.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to participate in the study could you please sign the attached consent form and return it to me before the start of our interview.

Thank you in anticipation

Viet Tran
Telephone: 0291222844
Email: viet.tran@pg.canterbury.ac.nz

Appendix 08: Consent Form

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Consent Form

Department: Anthropology and Sociology, School of Language, Social and Political Sciences
Telephone: 0220715948
Email: viet.tran@pg.canterbury.ac.nz

Ethnic minorities and sacred forests in Vietnam

(a) I have been given a full explanation about this project and have had the opportunity to ask questions about what is required of me. As a result, I have agreed to participate in the research.

(b) I have agreed to be interviewed orally and I agree that the researcher writes down, record details of our interview.

(c) I understand that participation is voluntary and I may withdraw at any time and that will also include the withdrawal of any information I have provided.

(d) I understand that any information or opinions I provide will be kept confidential by limiting to use my personal information and that reported results will not fully identify me.

(e) I further understand that the interview summary will be provided to me to look through to make sure that the contents reflect information I shared with the researcher.

(f) If there is any disagreement, ambiguity or misunderstanding, I will seek clarification from the researcher and we will agree on the way forward through consensus.

(g) Any further publication arising out of the thesis will be communicated to me beforehand and that I will not be named in the publication.

(h) I also understand all data relating to this research project will be kept secure and can only be accessed by the researcher and that at the end of the project all information and raw data will be kept secure for minimum of 10 years and then destroyed. I also understand that if there is a re-use of the data from this study in future research, I will be informed beforehand and will also be asked for my approval.

(i) I have been made aware of the risks associated with taking part in the research and how they will be managed and I agree to take part.

(j) I understand that I can contact the researcher (Viet Van Tran - email: viet.tran@pg.canterbury.ac.nz, Phone: 0291222844 or supervisor (Professor Steven Ratuva - email: steven.ratuva@canterbury.ac.nz) for further information.

(k) If I have any complaints, I can contact the chair of the University of Canterbury Human Ethics Committee, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

By signing below, I agree to participate in this research project.

Name:

Date:
Signature:

Appendix 09: Letter of Thanks

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Letter of Thanks

Department: Sociology, School of Language, Social and Political Sciences
Telephone: 0291222844
Email: viet.tran@pg.canterbury.ac.nz

Salutions:

I would like to express my thanks for meeting with me over the last two years to discuss sacred forests and the life of people in your village. By sacrificing your valuable time and efforts, you helped me to appreciate what is truly meant by the phrase “sacred forest”. I am currently completing transcripts of the interviews that I conducted with other villagers and should have them completed in the next 12 months. As discussed in the interviews, I expect to share a copy of your interviews in the near future.

Also, I would like to express my thanks for supporting me during the months I stayed in your village. I thank you in particular for opening homes and minds during the months.

One again, I thank you for valuable time and efforts, and I am looking forward to see you in the near future.

Sincerely,
Viet Tran

Appendix 10: List of studies where evidence is found of formal definitions of sacred forests

No	*Reference of study*	*Extract of definition*
1	Nkwi (2017)	is often associated with cultural and religious beliefs of the indigenous peoples
2	Ganguli, Gupta & Bhattacharya (2016)	are traditionally managed forest patches relevant for biodiversity conservation
3	Michael *et al*. (2006)	are places that hold spiritual values, source of healing, burial ground, places of pilgrimage, church, temple and or shrine and are regarded places of high biodiversity
4	Didora (2010)	- A sacred natural site is a natural feature or a large area of land or water having special spiritual significance to peoples and communities - Sacred natural sites consist of all types of natural features including mountains, hills, forests, groves, trees, rivers, lakes, lagoons, caves, islands and springs
5	Verschuuren (2010: 5)	are parts of sacred natural sites, in which is globally defined as 'areas of land or water having special spiritual significance to peoples and communities'
6	Nkwi (2017)	have long been in existence in ancient Rome, Greece, and most of Asia and Africa. It is often associated with cultural and religious beliefs of the indigenous peoples
7	Verschuuren (2010)	sacred natural sites are thus connected to a wide range of socio-cultural systems and institutions, some more complex than others, and to different dynamics of change and cultural interaction
8	Verschuuren (2010)	These are forests in which exploitation is prohibited (or prohibited to a certain degree) due to spiritual, social and cultural taboos, rules and customs
9	Dudley, Bhagwat, Higgins-Zogib, Lassen, Verschuuren & Wild (2010)	- a sacred forest is a wooded area, worshiped and/or feared, dedicated to the cultural expression of a fixed community - The access and management are regulated by traditional powers; sacred groves are informally managed - a forest, a tree, a plant, an animal can be inhabited by spirits - The access to sacred forests is restricted and there are four types of forests: fetish, cemetery, community, or multifunctional
10	Dudley, Bhagwat, Higgins-Zogib,	- a sacred forest is a wooded area containing plants and animal, and is said to be inhabited by spirits. The minimal area is 0.2 ha and there is no maximum. - a sacred forest is like a church which is devoted to one or several

	Lassen, Verschuuren & Wild (2010)	vodoun
11	Schelhas & Greenberg (1996)	are unique forest pathes that have survived due to strong cultural forces in many parts of Africa - generally are clusters of forest vegetation that honor a deity, provide sanctuary for spirits, remind present generations of ancestors, or protect a sanctifield place from exploitation -… are an integral part of the rural landscape and remain important repositories of cultural and ecological value - … are areas where the community has established a covenant with deities or other sacred entities to refrain from certain uses of the environment; … are usually controlled by a traditional authority, which may be a fetish priest in charge of a god of the grove, the chief of a village, or the members of specific groups such as "secret societies"
12	Kleinod (2014)	- the existence of a "sacred space" as opposed to "profane places" - … refers to a small patch of land which is taboo for certain forms of human use for cultural reasons.
13	Shinde, Dhale & Gaykar, 2011)	forest patches conserved by the local people through socio-cultural and religious practices. This religious and socio-cultural practice has enabled sacred groves to harbour a rich biodiversity of flora and fauna and has played a significant role in the conservation of biodiversity
14	McIvor, Fincke & Oviedo (2008, October)	- There are customs that contribute to their protection; they are often "no-go" areas, or ceremonial areas that cannot be used for other purposes. - are reservoirs of biodiversity
15	Andhra Pradesh (nd)	Segments of landscape containing vegetation, life forms and geographical features, delimited and protected by human societies under the belief that to keep them in a relatively undisturbed state is expression of an important relationship of humans with the divine or with nature
16	Muli (2016)	areas of land or water with special spiritual importance to communities and people. Sacred is that which is connected to religion and so deserving veneration
17	Ongugo, Mogoi, Obonyo, Omenda & Sigu (2016)	- are regarded by some adjacent forest communities as the first temples of God; they are seen as manifestations of spiritual powers of deities and areas through which the people can communicate to their gods and departed ancestors - are institutions that have evolved over the years through employment of sanctions in such societies
18	Ormsby (2013)	sites that have cultural or spiritual significance for the people who live around them". They have been protected by communities around the world for a variety of reasons, including religious practices, burial

		grounds, and watershed value
19	Anh (2010)	- "have a spirit or/and religious function in at least one community" - is gosh forest, worship forest or watershed forest
20	Deb (2007)	… were perhaps the first temples of worship in the world (Varner 2005) … are the physical spaces of the operation of ancient animistic religions of all hunter-gatherers of the Old World, being prevalent in tribal societies in all States of India, except the Andaman and Nicobar Islands
21	Chidester & Linenthal (1995)	Sacred sites are places that hold "significant spiritual value" for... It is part of our guarantee of freedom of religion; it reflects our cultural, historic and ecological values; it can be viewed as a restorative justice measure; and it is a good fit with the spiritual values of non-Indian Americans, especially those in faith-based and environmental groups

Appendix 11: An incomplete list of identified sacred forests in India

State	*No of groves*	*Local name*
Andhra Pradesh	691	*Pavitraskhetralu*
Arunachal Pradesh	65	*Gumpa forests*
Assam	40	*Than, Madaico*
Chhattisgarh	600	*Sarna, Devlas, Mandar, Budhadev*
Gujarat	29	
Haryana	248	*Beed or Bid, Bani, Bann, Janglat, Shamlat*
Himachal Pradesh	329	*Dev Kothi, Devban, Bakhu Devban*
Jharkhand	21	*Sarna*
Karnataka	1.424	*Devarakadu, Devkad*
Kerala	2.000	*Kavu, Sarpa Kavu*
Maharashtra	1.600	*Deorai/Devrai*
Manipur	365	*Gamkhap, Mauhak*
Meghalaya	79	*Law Kyntang, Law Lyngdoh*
Orissa	322	*Jahera, Thakuramma*
Puducherry	108	*Kovil Kadu*
Rajasthan	9	*Oran, Kenkri, Vani, Shamlat deh, Devbani, Jogmaya*
Sikkim	56	*Gumpa forests*
Tamil Nadu	503	*Kovil Kadu*
Telangana	65	
Uttarakhand	18	*Devbhumi, Bugyal*
West Bengal	670	*Garamthan, Harithan, Jahera, Sabitrithan, Santalburithan*

Sources: Adapted from Behera & Pradhan (2015).